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## From the Sub-Continent

Stephen Parker

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The first four articles in this issue come from the South Asian sub-continent – three from India and one from Bangladesh. The first paper, however, deals with ‘Diversity in librarianship: The United States perspective’. The author, Anjali Gulati, of Isabella Thoburn College, Lucknow, aims to explain how the concept of diversity has been covered in the professional literature and how it has been understood and implemented in tribal community libraries, public libraries, academic libraries and school libraries and the diversity statistics of library professionals in the USA. The paper highlights some of the main issues relating to diversity in libraries, including staffing; recruitment and retention, recruitment of students and faculty of color to library schools, library services and organizational climate. The author concludes with a consideration of some challenges the library profession faces in relation to diversity and makes recommendations to overcome these challenges.

The second paper, by Rupak Chakravarty of Panjab University, addresses an issue of current concern in many countries, but with a focus on the situation in India. In ‘Preserving traditional knowledge: Initiatives in India’, the author notes that traditional knowledge is a valuable asset for any country which needs to be preserved. The paper then describes the role of the Traditional Knowledge Digital Library and its activities in preserving traditional medicinal knowledge in India.

From India we move to Bangladesh, with a paper by Mohammed Anwarul Islam and Keita Tsuji on ‘Assessing information literacy competency of Information Science and Library Management graduate students of Dhaka University’. The paper reports on a study which aimed to assess the information literacy competency of Information Science and Library Management (ISLM) graduate students at the University of Dhaka, Bangladesh, and to determine their strengths and weaknesses. It found that students had

limited skills in the area of information literacy, which is not discussed extensively in their academic courses, and urges the incorporation of an information literacy programme in the course curriculum, together with more writing, discussion and other activities that will help make the students more information literate.

We return to India with the next paper, ‘Research output in the field of natural sciences: A bibliometric case study of Jamia Millia Islamia University, New Delhi’, by Shailendra Kumar and Shehbaz Husain Naqvi. The study analysed a total of 1313 records of publications by faculty members from 1971 to 2007. Bradford’s Law and Lotka’s Law were tested and found applicable to the data. The study showed that authors from the Faculty of Natural Sciences contributed mainly in the form of journal articles and that the pace of research in the university is developing slowly.

We leave the Indian sub-continent for the first of three papers with an IFLA connotation. The first paper, ‘Non-users’ evaluation of digital libraries: A survey at the Università degli studi di Milano’, by Chiara Consonni, was the winner of the IFLA LIS Student Paper Award, 2010. It presents the results of a questionnaire survey of non-users of the digital library services at the Università degli Studi di Milano which focused on ‘factual non-users’, who used the service once and then decided to not use it any more. ‘The results showed that, despite having made only limited use of the digital library’s facilities, factual non-users, believed that they were familiar with the service and considered it to be satisfactory. The survey highlighted some weaknesses in the service, including a lack of user-friendliness and limited availability of material in some disciplines. The results confirm how little is known about the non-users and raise many new and controversial questions which should compel the scientific community to investigate non-users more deeply.

The next paper, 'Building capacity through the IFLA Building Strong Library Associations programme', by Fiona Bradley, provides an introduction to the programme, which is rolled out through country projects which include workshops, specialist mentoring, online blended activities and specially developed cross-programme activities. Three country projects per year will be implemented from 2010 until 2012, one each in Africa, Asia and Oceania, and Latin America and the Caribbean. The programme will be evaluated on three levels with a view towards ensuring sustainability of the programme and each country project.

In the following paper, Theo Bothma of the University of Pretoria describes 'The IFLA World Report 2010', which was launched at the WLIC in Gothenburg. The 2010 report is the fifth in a series

that has appeared biennially since 2001, and is the first to be made available exclusively online in a fully searchable database, complete with graphical map interface. The project was assigned to a research team from the Department of Information Science, University of Pretoria, South Africa, with Professor Theo Bothma as project leader.

The final paper in this issue brings South Asia and IFLA together in a report by Sanjay K Bihani on the IFLA International Newspaper Conference 2010, held in New Delhi in February 2010. The conference focused on digital preservation and access to news and views.

The President's Page in this issue presents President Ellen Tise's Opening Address to the World Library and Information Congress in Gothenburg.



# Opening Address to the World Library and Information Congress, IFLA 76th General Conference and Assembly, Gothenburg, Sweden, August 2010

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**Ellen R. Tise, IFLA President 2009–2011**

Governor, Mr Mayor, Members of Parliament, Distinguished guests, Members of the IFLA Governing Board, Members of the National Committee of the World Library and Information Congress 2010, Presidents of Library Associations, Directors of National Libraries and Institutions, Members of IFLA, Delegates and Friends of IFLA.

It gives me great pleasure to welcome you all to Gothenburg, Sweden, for the World Library and Information Congress: IFLA's 76<sup>th</sup> General Conference and Assembly.

There is a long IFLA tradition in this country. Our Swedish colleagues were numbered among the founding fathers of our Federation who met in Edinburgh, Scotland in 1927. The inaugural President of IFLA was the Swede, Isak Collijn who served in that capacity from 1927 to 1931. Collijn was then Director of the Royal Library in Stockholm. IFLA has held three annual conferences in Sweden: Stockholm, 1930; Lund and Malmö, 1960 returning to Stockholm in 1990. The latter met under the theme 'Libraries: Information for Knowledge' which is by the way rather close to my Presidential Theme some 20 years on! 2010 is therefore the fourth time that IFLA has convened in Sweden, a distinction that no other country holds.

Sweden's commitment to IFLA is far-reaching. Swedish institutions and organizations have supported international librarianship in many ways. One only has to think of the generous grants that the Swedish aid agency, SIDA, has provided over the years and the hosting of our IFLA/ALP office for nearly 20 years in the library of the University of Uppsala to understand the strength of the Sweden/IFLA relationship. Through the ALP programme, SIDA and

Sweden have had a presence in many developing countries all around the world. SIDA's contribution to the advancement of librarianship in developing countries is significant.

Given this long joint history and tradition that IFLA and Sweden share, it was therefore no surprise to us that Sweden, at a fairly late date, was able to host this congress. I would therefore like to sincerely thank the Swedish National Committee for hosting this gathering in record time. I am sure you too would like to express your appreciation to our Swedish colleagues for their work on behalf of IFLA and us all.

The switch of venue to Gothenburg placed enormous challenges on the National Committee and library fraternity in Sweden. I would like to commend them for their valiant efforts on behalf of IFLA and the exceptional hard work and effort they put into arranging this IFLA congress in such a short space of time. They have gone all out to ensure that we have a successful congress.

The National Committee chose to energize and support my Presidential Theme – Libraries Driving Access to Knowledge – through their choice of theme for this congress, namely – Open Access to Knowledge: Promoting Sustainable Progress. They substantiated their choice with the view that "access to knowledge opens the world of imagination and creativity, this progress for one individual becomes progress for the society". I am honoured and thrilled with their choice, not just because it is inspired by my Presidential Theme or because it promotes equitable access to information, but due to the fact that I passionately believe that knowledge is a critical factor influencing all spheres of life. To reiterate what I said in Milan "without knowledge all effort is nought.

Without sound, accurate and reliable knowledge the decisions and actions we and others take can have disastrous consequences for a very long time. Knowledge is the key to success". Further, access to knowledge is critical for the equal growth of all communities, societies, cultures and nations. Libraries, as essential providers of information, have an important role to play in the creation of new knowledge. As a major source for information, libraries serve a wide spectrum of information seekers, who are not only critical but central to the facilitation of knowledge generation. Equal access to knowledge serves to ensure the stability of nations and the assurance of world peace.

Access to knowledge however is not dependent free. Firstly, to paraphrase Jan Hoithues, Gutenberg's invention of print with moveable letters caused books and printed media to become the core of information and its transmission. Literacy was and is key to power and empowerment. The ability to produce and preserve the printed word are therefore key attributes of power and empowerment. In today's world, however, the printed word can no longer be taken at face value. The ability to discern the veracity of the printed word has become a core skill. Our literacy skills have transitioned from merely being able to read, write and understand to being able to distinguish between the bathroom-writing found in some of the widely available electronic resources as against those sources which provide reputable information, which unfortunately in today's world is often not free and consequently not universally available. We therefore have had to develop several literacies to survive in today's world. The commodification of information is one of the key challenges that libraries face as they seek to provide access to knowledge. I will return to the economic aspects of information shortly.

Hoithues raises another issue which points to the morphing of text as matter. In today's world information is no longer restricted to the printed word. Information in general is becoming more visual and aural in content. Image, colour, sound and movement are now accepted and anticipated aspects of information creation, transfer and presentation. One has to merely think of a web page that has no colour, movement, sound or images to realize how much these features have become subliminal aspects of access to information as well as access to and transfer of knowledge. Access to knowledge at conferences such as ours is no longer based on reciting points from a page. Rather we have become accustomed to and anticipate presentations which are hi-tech PowerPoint presentations with all of the bells and whistles that sound, movement, colour and images provide.

All of this illustrates that the creation of and access to knowledge depend on the existence of technology, its utilization and an ever-advancing thirst for new technological developments which make knowledge more widely available on an anytime, anywhere and just-in-time basis. All of this, however, has led to there being an economic value being placed on knowledge. Access to knowledge is more and more being associated with the fees attached to database usage, images identified for reproduction and royalties for sound bites or complete musical works. Access to knowledge is increasingly being associated with the payment of fees for access. No one can question the right of publishers to recover costs, however, demand for payment introduces another bar which needs to be overcome to facilitate access to knowledge. While in and of itself an extremely valuable commodity, in fact there are some who view knowledge as being even more valuable than precious metals such as gold, diamonds and platinum. Knowledge has become quantifiable in terms of its economic worth. Knowledge is the one commodity that increases in value with use – there are no diminishing returns when knowledge is used. In fact the use of knowledge, unlike other commodities which once used lose some value, such use often leads to new knowledge thereby enhancing the inherent value of this commodity. Knowledge and access to knowledge contribute to the development and expansion of democracy and sustainable development, for the benefit of our natural resources and the equality between people.

The roles of libraries and librarians in providing access to knowledge are important and variable. Areas of responsibility, abilities to provide such access and status differ, depending on our location in the world, but together we are part of the culture bearers in our countries and serve as critical knowledge access points. By storing resources of knowledge we preserve knowledge. Technology enables us to make this knowledge available to this and future generations. By playing a critical role in such developments, libraries and librarians become central to the creation and sustainability of the information society. We spread information and we make it easily accessible, thus contributing to both societal and individual development. Such a role articulates squarely with the theme of this congress 'Open Access to Knowledge: Promoting Sustainable Progress'.

In closing, our 76th congress will be the source of many professional and personal experiences. It is the wish of the national committee, the governing board and me as President that the congress will afford you with sound professional engagements and a renewed

commitment to our profession. Several plenary speakers will address how information, education and knowledge contribute to the development of many fields. In addition, individual and group presentations, demonstrations and exhibition will provide exposure to many new developments and reports on work in progress.

We hope that your stay in Gothenburg and Sweden will generate positive experiences of commitment, openness, and cultural affinity with Gothenburg and Sweden. There is room for many personal encounters in a city of this size. Our social and cultural programme is interwoven with the city's culture festival. You will find a variety of cultural activities throughout Gothenburg that are freely available to all of us, and we are going to highlight some items on the

programme – events that are not to be missed. You will have the opportunity to see colleagues from all over the world at sessions, over coffee, for dinner or in one of the many night spots that this city has on offer.

We look forward to a good conference, a good atmosphere, good professional experiences and development, the formation of new networks and the renewal of old friendships. Welcome to Gothenburg, an open city with easy access, welcome to Sweden, to the society of knowledge and sustainability and welcome to the 2010 World Library and Information congress, a congress in progress!

And, it is with much pleasure that I declare IFLA's 76th General Conference and Assembly open.

*Ellen. R. Tise, Gothenburg, August 2010*



# Diversity in librarianship: The United States perspective

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## Abstract

This paper aims to explain how the concept of diversity has been covered in the professional literature and discusses how diversity has been understood and implemented in the context of tribal community libraries, public libraries, academic libraries and school libraries and the diversity statistics of library professionals. The paper highlights some prominent issues of diversity in libraries, such as: staffing; recruitment and retention; recruitment of students and faculty of color to library schools; library services and organization climate. The paper concludes by mentioning some challenges the library profession is facing, such as lack of representation of minorities among students and faculty, and makes recommendations to overcome these challenges.

## Keywords

diversity, libraries, United States

## Diversity: know-how

‘Diversity’ is a trend that is ever contemporary, historical and futuristic. Sometimes the definition of diversity is sharp and explicit: racism, white privilege, homophobia, inequity of access, institutional racism, organizational barriers, non-English speaking and non-white. At other times the definition is elusive; it is a celebration of difference, internationalism, intellectual diversity, global village, multiculturalism, organizational culture, diversity of work style, and diversity of learning style (Balderrama, 2000).

Diversity can thus be defined in many different ways. It is a commitment to recognizing and appreciating the variety of characteristics that make individuals unique in an atmosphere that promotes and celebrates individual and collective achievement. Examples of these characteristics are: age; cognitive style; culture; disability (mental, learning, physical); economic background; education; ethnicity; gender identity; geographic background; language(s) spoken; marital/partnered status; physical appearance; political affiliation; race; religious beliefs; sexual orientation (University of Tennessee, 2008). According to the *Online Dictionary for Library and Information Science*, “diversity is the inclusiveness with regard to variation in age, gender, sexual orientation,

religious belief, and ethnic, racial, and cultural background within a given population. In the United States, libraries strive to achieve diversity in library school admissions, hiring, collection development, services, and programs” (Reitz, n.d.). Further, it is one of five key action areas adopted by the American Library Association to fulfill its mission of providing the highest quality library and information services for all people. The association actively promotes equal access to information for all people through libraries and encourages development of library services for diverse populations.

The American Library Association recognizes that in addition to race, creed, color, religion, gender, disability and national origin, there is a multitude of differences (language origin, regional and geographic background, economic class, education, learning and communication styles, sexual orientation and personal lifestyle) that individuals bring to the workplace. It is this diversity that contributes a deeper level of understanding and competence to our daily

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work. The American Library Association (ALA) envisions a richly diverse workforce providing a high level of service to the membership in an environment where respect, appreciation, equity and inclusion are core values. The association's activity promotes equal access to information for all people through libraries, encourages development of library services to diverse populations, advocates for recruitment to the profession of underrepresented groups and individuals with disabilities and deeply commits to fostering a diverse and inclusive work environment for its own staff (American Library Association, 2010).

### **Diversity vis-à-vis libraries**

Libraries are an American value. They offer people of all ages and backgrounds the resources they need to learn and grow and achieve their dreams. The strength of libraries has always been the diversity of their collections and commitment to serving all people. The subject of diversity is of special importance to libraries, be they academic, special, corporate or public, because they provide a forum for diverse ideas and points of view that can help us learn about and better understand ourselves and each other.

If libraries are to be at their best, their services and staff must reflect both the people they serve and the larger global community. Today's libraries provide a wide range of opportunities for people with diverse needs and interests. These include cultural heritage collections, materials in alternate formats such as large print, multilingual Internet training, bilingual story hours, English as Second Language classes and many other creative and resourceful programs.

Another side of the picture is the underserved segment of society, that is, the community of Native Americans in the US. Bringing their issues and concerns to the forefront in library services remains an uphill battle. Their community libraries suffer from poor budgets and lack of adequate technology, but with the help of private organizations, such as the Bill and Melinda Gates Foundation, the funding roadblocks are being addressed. The Gates Foundation has worked with the southwestern tribal leaders, librarians, and educators to help bridge the digital divide among Native Americans through its Native American Access to Technology program. The overall goal is to empower native communities through increased access to tools and technology to preserve local culture and heritage and to offer opportunities for participants to learn and teach digital skills (Hayden, 2004).

By acquiring skills such as developing a consistent management style, being observant of the work

environment and employees' personal styles and learning to manage the dynamics of the workplace, librarians can become more aware of themselves and others and work to resolve conflict, including those arising from diversity issues (Reynolds, 2008).

Besides the ALA, there are other professional associations which claim diversity as a value and an operating principle. For example, according to its Strategic Plan, 2009–2010, the Library Services to Multicultural Populations Section of the International Federation of Library Associations and Institutions (IFLA), aims to "Promote, in our global society, access to a full range of library and information services suitable for and about cultural, ethnic, and linguistic minorities". Further,

"The Section works with all types of libraries, especially public libraries, library consortia, non-library associations and government agencies to develop services and support for multicultural populations and their cultures in all countries. Multicultural populations can include new immigrants, indigenous groups, refugees, ethnic minorities and others who are seeking materials in languages reflective of their needs. The section promotes . . . the right that every individual in our global society has access to a full range of library and information services. In order to achieve this, the Section supports and encourages libraries in all countries to provide services to multicultural populations through the promotion and dissemination of best practices, emerging trends and issues, and relevant programs. The Section serves as an international forum for the exchange of information concerning the development of multilingual and multicultural services." (IFLA, 2009)

### **Diversity statistics of library professionals**

Growing diversity in the US population can be demonstrated by the increase in the population of Latinos. When the US population reached 200 million in the mid to late 1960s, Latinos accounted for 4 percent of the population. By 2009, the US population had grown to 308 million, and the population of Latinos to 46.7 million. Latinos now account for about 15 percent of the US population (United States Census Bureau, 2009). At the same time there is also a significant growth in population groups from other cultures. For example, it is estimated that in California alone, there was a 127 percent increase in the Asian population during the period 1980–1990. This rapid change in demographics affects not only the community at large but also the workplace and educational institutions at all levels. It offers new challenges for librarians in special, academic, public and school libraries

who are likely to be working with patrons who have a very different background than their own. The Latino population offers a cogent example of how likely it is for a patron from a diverse community to be working with a librarian from a different cultural background; currently there is one Latino librarian for every 9177 Latinos as compared to one Anglo librarian for every 1830 Anglos. Hiring more Latino librarians is not a feasible short-term solution, since between 1995 and 2000 only 3.1 percent of all library science graduates were Latinos and the number seems to be declining (Allard, Mehra and Qayyum, 2007).

A report on diversity from the American Library Association provided estimates (by analyzing the 1990 and 2000 decennial censuses of the US for the industry of "library") of employment in the library profession in the United States in relation to age, ethnic background, and gender for academic, K-12 (school libraries), public, hospital, and legal libraries. The Census Bureau, based on definitions from the Bureau of Labor Statistics, distinguished between 'credentialed' librarians (those who have completed a master's degree) and 'non-credentialed' librarians (those who have not completed a master's degree). Nearly 110,000 credentialed librarians in public, school, and academic libraries are predominantly white regardless of age group or gender. They are not limited by disability and work full-time (40+ hours per week). Non-credentialed librarians represent approximately 43 percent of those working for the industry "library" and have a slightly more balanced ethnic and racial distribution than credentialed librarians, with almost 17 percent of non-credentialed librarians belonging to non-white race/ethnicity categories, whereas only 11 percent of credentialed librarians did so. When looking at gender in non-white race/ethnicity categories, the data reveal a higher proportion of Native American, Latino, or multiple race males than for their white counterparts. Women were more represented in African American and Asian/Pacific Islander (API) categories by approximately 10% than for the other race/ethnicity groups (American Library Association, 2007).

### **Issues of diversity in libraries**

The literature related to diversity in libraries has focused to varying degrees on a few important issues such as:

#### *Staffing, recruitment and retention*

Librarians from different cultural backgrounds should be recruited in the libraries to combat the problems of multicultural library users (Stanley, 2007). For

example, Balderrama (2000) explained how Indian Trails Public Library in Illinois had implemented strategies to effectively serve the multilingual and newcomer populations in their service area. The library staff encouraged Latino, Korean, Japanese and Russian community members and these community members were invited to tell their truth, speak in their own words about their own perspectives on cultural protocol, about their experience with libraries in this country, and make suggestions about how to communicate with elders, children, and families when there is a language barrier.

The Association of College and Research Libraries's board of directors has been the forerunner in formulating recommendations for the recruitment, retention and advancement of librarians from different cultural backgrounds. They advised to develop a comprehensive, collaborative recruitment and public awareness campaign for recruitment purposes. They also emphasized a collaborative, cohesive, holistic approach to harnessing the available information and resources on recruitment and retention and opportunities for advancement. The board further recommended a few advancement strategies for minority librarians beyond entry level such as, track assistant director / director /dean positions of academic libraries, track available leadership pools of minority candidates and institute a system of accountability regarding the retention and advancement of underrepresented groups in libraries (Neely and Peterson, 2007).

#### *Recruitment, hiring, retention of diverse student staff*

Kathman and Kathman (1998) stated that most university campuses in the US have made a commitment to increase the diversity of their student population. To fulfill this, the university libraries should take a proactive approach and actively select and hire a diverse student staff. They recommended that a good starting point would be to create a liaison with both the admissions office and the student employment office. The admission office could provide the background data and a diversity profile of incoming and current students. The student employment office would have to know of the library's interest and may assist in the recruiting effort. The library should also identify any other offices (i.e., minority, international, or advising) that may be of assistance in its selection and hiring process.

Further, they advised that, in the selection process, it is important to be open to the talents that individuals with diverse backgrounds can bring to the workplace;

both the job descriptions and the interview questions should focus on only the essential requirements of the job. The interview questions should be designed to elicit information that allows the best fit between the library, the student, and the job. For example, a student struggling with English probably would not suit best for a public service area but might be very skilled in computer usage or shelving books.

### *Recruitment of students and faculty (of different cultural backgrounds) to library school*

A major concern in library and information science for many years has been developing ways to address diversity within the profession. In the circular, self-feeding cycle of education and librarianship, minority school and public librarians who serve as role models for minority children may inspire the children to go to college. In college, minority academic librarians and library school faculty may inspire them to go to graduate school to become librarians and role models themselves. The library profession has particular challenges in recruiting minorities. It is a relatively small field, not highly visible in the grand scheme of careers, and it requires graduate education for professional status. Library and information science (LIS) programs are hardly unique in the limited diversity of their faculties; nationwide, many other fields also struggle with achieving a representative faculty population (Totten, 2000).

Totten (2000) opined that diversity leads to more productivity. In one sense, productivity in librarianship translates into work that allows the full range of voices to be heard in every aspect of library practice. Productivity for library schools means producing quality graduates to do this work. Diversity ensures that the best work is put forth because no one is excluded from the talent pool. In order to overcome disparities in representation, library schools must recruit and support minority students and faculty. To attract minority students into the library profession, a few initiatives were undertaken such as the ALA Spectrum scholarship and Knowledge River initiatives. Stanley (2007) stated that Spectrum began in 1997 with an initial funding of US\$ 1.5 million to support scholarships and programs from the four "protected minority" categories recognized by the US Equal Opportunity Act: African Americans, Hispanic/Latino, Asian/American, and Native Americans. Similarly, the Knowledge River Initiative has attempted to increase minority representation in the library profession by recruiting Latino and Native American students into the library program at the University of Arizona.

Another live example of attracting diverse individuals to become professional librarians was presented by Denver Public Library (DPL). This is one of the libraries selected for a project grant funded by the Institute of Museum and Library Services (IMLS) in Washington D.C. It provided scholarship support for minority students to earn their Masters degree in Library Science. As a part of this project, the DPL also provided much needed tuition assistance to a handful of minority and multilingual employees seeking a MLS degree (Svendsen, 2007).

Jaeger and Franklin (2007) emphasized that the LIS programs must accept the responsibility for populating the profession with a new generation of culturally competent librarians. However, culturally competent librarians can only be educated by a diverse faculty. They further mentioned that, if more faculty members in LIS programs were from diverse and under-represented populations, their perspectives and voices would help to shape the content of curriculum and instruction in LIS Master's programs to be more inclusive of diverse perspectives. This, in turn, would produce graduates of LIS Master's programs who would be more aware of the needs of diverse populations of library patrons and better prepared to provide inclusive services to their communities. Increased levels of diversity among LIS faculty would also help to reinforce to Master's students from under-represented populations that they too could become LIS faculty, leading to more diversity in LIS doctoral programs and producing more library administrators and LIS faculty from diverse backgrounds. Ultimately, this circle of diversity in LIS programs would result in more inclusive services to all library patrons in all types of libraries.

### *Library collections*

Winston and Li (2007) recommended that the library staff should make an assessment related to collections of resources related to diverse populations (e.g., African American collections, Asian/Asian American collections). Programs should be implemented to diversify the materials in the library collections in relation to diverse populations. In this connection, Arist (2007) elaborated on the diversity efforts in collection development made by the library of Northwestern University in Illinois. The university is an established leader in serving African American students and scholars of Africa and its diaspora. The Herskovits collection of Africana, founded in 1954, is maintained in the main library at the university. This collection also supports the Department of African American Studies of the university. This

collection included 285,000 volumes, 2,800 current serials, and 250 current newspapers. 15,000 books are written in 300 different African languages. The Collection also includes photographs, maps, and other ephemera. It also has online resources for the study of Africa.

Similarly, Foster (2007), the President of the Pennsylvania School Library Association (PSLA) argued that diversity in school libraries could be realized by providing variety of materials, reading levels, points of view, and cultures so as to bring the proper mix of resources for all users. She opined that school librarians must embrace the challenges, not just of developing the collection, but also of developing learning that represents the very diverse student population that they serve. She further stated that school librarians must stretch all the way from gifted and talented students to those with special needs, including English language learners and those needing alternative education. In addition, school library collections must reflect a balance of racial, cultural, socio-economic, religious, political and gender differences while building a collection of resources for informational, recreational, and vocational reading needs.

### *Library services*

In relation to library services, libraries should implement programs that are designed to provide library services to segments of a diverse population. The types of programs include: computer training, literacy training, English as a second language and training and programs related to reference service for segments of the population (Winston and Li, 2007). Similarly, Schaumburg Township District Library (STDL) <http://www.stdl.org/> in Illinois has been serving a diverse population of more than 130,000. STDL's mission is to be a premier provider of equal access for all to quality information, materials, programming and facilities. Several international languages are represented in its adult services, including Arabic, Bengali, Chinese, French, German, Gujarati, Hebrew, Hindi, Italian, Japanese, Polish, Russian, Spanish, Urdu and Vietnamese. The library also has a Polish Book Discussion Club and Italian and Hindi language classes are taught at the library. The youth adult librarian works with her teen club to present ethnic programs (Arist, 2007).

Balderrama (2000) opined that a few library organizations have identified that there is an urgent need to provide library service to diverse populations (outside the library). There is a need for a coordinated effort to reach outside of the library building and into the library service area. The nature of outreach work

would require ongoing communication, visits, follow-up and establishment of credibility about what the library is and what it can offer.

### *Organizational climate*

Winston and Li (2007) opined that the libraries should have library diversity committees or diversity officers in their organizations. This diversity committee can review other possibilities for minority recruitment into library profession and diversification of library staff. Krietz (2008) emphasized that diversity practices should be implemented by library diversity officers, such as making diversity an organizational priority, developing, focusing and sharing one's vision of diversity, practicing that vision and creating accountability and assessment among the management group.

### **Conclusion**

To fulfill libraries' social mission as provider of equal services to all, library services and outreach that are inclusive to diverse communities of patrons are becoming even more important as the United States becomes increasingly more diverse. The library profession is facing new challenges in information services in order to reach out to the increasingly diverse and often multilingual populations it is serving. A complaint heard from both current library school students and minority librarians in the field is that programs (Library Information Science is considered as a professional field) are lacking in representation of minorities among their faculty. Not only do librarians have to consider recruitment into the field, they must likewise look at how to increase the number of minority faculty within library school programs.

According to Josey and Abdullahi (2002), another major concern is to recruit more representatives of minorities, not only at the entry level but also at middle level as well as top management. To increase minority recruitment into the library profession, Stanley (2007) recommended: to make a personal commitment to minority recruitment; to begin marketing much earlier at the junior and senior levels in high school, using high school advisors, career days, and high school librarians; and to develop and implement a mentoring program that provides professional and emotional support and assistance to minority library school students.

The need for a more diverse face of librarianship has been well documented and will only become more urgent as time passes. It is vital that librarians be proactive in cultivating a professional identity as diverse as the users that they serve.

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# Preserving traditional knowledge: Initiatives in India

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## Abstract

Traditional knowledge is a valuable asset for any country as it plays a vital role in making the nation more progressive and transforming its society. This paper discusses the need for preserving traditional knowledge. The paper describes the role of the Traditional Knowledge Digital Library and its activities in preserving traditional medicinal knowledge in India.

## Keywords

traditional knowledge, traditional medicinal knowledge, indigenous knowledge, Traditional Knowledge Digital Library, intellectual property, patents, India

## Traditional knowledge

The knowledge and uses of specific plants for medicinal purposes (often referred to as ‘traditional medicine’) is an important component of Traditional Knowledge (TK). TK is also termed ‘indigenous knowledge’ (IK), ‘traditional environmental knowledge’ (TEK) and ‘local knowledge’.<sup>1</sup> It refers to the knowledge systems held by traditional communities and is based on their experience and adaptation to a local culture and environment. This knowledge is used to sustain the community and its culture. Placing value on such knowledge helps strengthen cultural identity and the enhanced use of such knowledge to achieve social and development goals, such as sustainable agriculture, affordable and appropriate public health, and conservation of biodiversity.<sup>2</sup> Traditional knowledge is collective in nature and is often considered the property of the entire community, and does not belong to any single individual within the community. For many communities, TK is inseparable from their cultural values, spiritual beliefs and customary legal systems and is viewed as their intellectual property. Such systems are significant, not only for these communities, but also for the whole world.<sup>3</sup>

## Intellectual property and traditional knowledge

The term ‘intellectual property’ (IP) reflects the idea that it is the product of the mind or the intellect. It

is protected through law and can be owned, sold or bought.<sup>4</sup> IP law confers enforceable rights upon the person responsible for the intellectual output, so that the creator or owner of IP can exercise a measure of control over its future use. It plays an important role in all aspects of human life, including health care. Each country has developed its own IP laws to regulate the use and re-use of intellectual inventions within specific territorial boundaries.

The role of IP systems in relation to traditional knowledge, its preservation, protection and use, has recently received increasing attention in a number of international forums on matters as diverse as food and agriculture, the environment (notably the conservation of biological diversity), health (including traditional medicine), human rights and indigenous issues, and aspects of trade and economic development.<sup>5</sup> While the policy issues concerning TK are broad and diverse, the IP issues break down into two key themes: positive protection (giving TK holders the right to take action or seek remedies against certain forms of misuse of TK) and defensive protection (safeguarding against illegitimate IP rights taken out by others over TK subject matter)<sup>6</sup>.

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Indigenous and local communities have argued in national and international law-making bodies that their knowledge systems should not be used by others, without their consent, as well as arrangements for fair sharing of the benefits. Understanding the role of intellectual property and TK, various inter-government bodies like the Convention on Biological Diversity (CBD)<sup>7</sup>, the World Intellectual Property Organisation (WIPO)<sup>8</sup>, the Food and Agriculture Organisation of the United Nations (FAO)<sup>9</sup>, the World Trade Organisation (WTO)<sup>10</sup> and the United Nations Conference on Trade and Development (UNCTAD)<sup>11</sup> are working in this direction. WIPO has taken the initiative by considering the needs of the representatives of TK-holding communities from all over the world. In 1981, WIPO and UNESCO adopted a model law on folklore<sup>12</sup>. In 1989, the concept of Farmers' Rights was introduced by the FAO into its International Undertaking on Plant Genetic Resources, and in 1992 the CBD highlighted the need to promote and preserve traditional knowledge.<sup>13</sup> The WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC)<sup>14</sup> was established in 2001 as an international policy forum. Many multilateral treaties have also been enacted over the last more than 100 years with nation states enacting the general principles found in such treaties into their own domestic laws. For instance, India<sup>15</sup> has adopted *sui generis* laws that protect at least some aspects of TK.

### Traditional medicinal knowledge of India

Indians have an age old tradition of using herbs and spices with medicinal value, like amla (*Phyllanthus emblica*), black pepper (*Piper nigrum*), basil (*Ocimum basilicum*), etc. Amla (Indian Gooseberry) is the most potent natural source of vitamin C, which is an excellent anti-oxidant and contains as much vitamin C as two oranges. It helps maintain a stronger, healthier digestive system, improved overall immunity, detoxifies the body, purifies the blood, lowers cholesterol, enhances vision, and strengthens the lungs, respiratory system and central nervous system. Kali Mirch (black pepper) is an expectorant, carminative, antipyretic, anthelmintic and appetizer. In India, it has been used as a medicine to cure toothache, asthma, chronic indigestion, colon toxins, obesity, sinus congestion, fever, colic pain, cholera, gastric ailments, etc. Another Indian spice called methi (fenugreek) cures indigestion, constipation, mouth ulcers, prevents the formation of kidney stones, and controls blood sugar level. Tulsi, the most sacred herb of India, is used as a nerve tonic, to sharpen memory, and cure fevers, common

colds and respiratory disorders like bronchitis, asthma and influenza, etc. It also acts as a remedy in cases of influenza, kidney stone and heart disorders by reducing blood cholesterol. Ginger, perhaps the most sought after spice in most of the Indian foods, provides relief from sweating, vomiting, dizziness, nausea, arthritic pain, ulcerative colitis, headaches, fevers from flu and colds, sore throats, and chemotherapy. This traditional knowledge about the uses of herbs, better known among Indians as 'dadi maa ke nuskhe' (Grandma's treatment), has been handed down from one generation to another and forms an inseparable part of Indian culture.

Such traditional knowledge is being used by a number of pharmaceutical organizations. In South India, the medicinal knowledge of the Kani tribes led to the development of a sports drug named Jeevani, an anti-stress and anti-fatigue agent, based on the herbal medicinal plant arogyapaacha.<sup>16</sup>

### Traditional Knowledge Digital Library (TKDL)

India's rich traditional knowledge has not only been passed down by word of mouth from generation to generation, but has also been described in ancient classical and other literature. Such knowledge is often inaccessible to the common man, and even when accessible, is rarely understood, as it exists in local languages such as Sanskrit, Urdu, Arabic, Persian, Tamil, etc. Documentation of this existing knowledge of various traditional systems of medicine, available in the public domain, has become imperative to protect it from being misappropriated in the form of patents on non-original innovations.<sup>17</sup> It had been observed that, in the past, patents have been granted to inventions related to already known traditional knowledge because the patent examiners could not search for relevant traditional knowledge as prior art, due to the non-availability of such information in the classified non-patent literature. In 1995, the United States Patent Office granted a patent on the wound-healing properties of turmeric (*Curcuma longa*) which was challenged successfully and the patent revoked. The revocation of the patent granted by European Patent Office to W.R. Grace Company and the United States Department of Agriculture on neem (EPO patent No. 436257), again on the same grounds of its use having already been known in India, is another example.<sup>18</sup> A study conducted in 2000 showed that 4,896 patents on medicinal plants had been granted by the US Patent Office, 80 percent of which were on plants of Indian origin<sup>19</sup>. The findings also revealed that out of 760 such patents, 350 should have

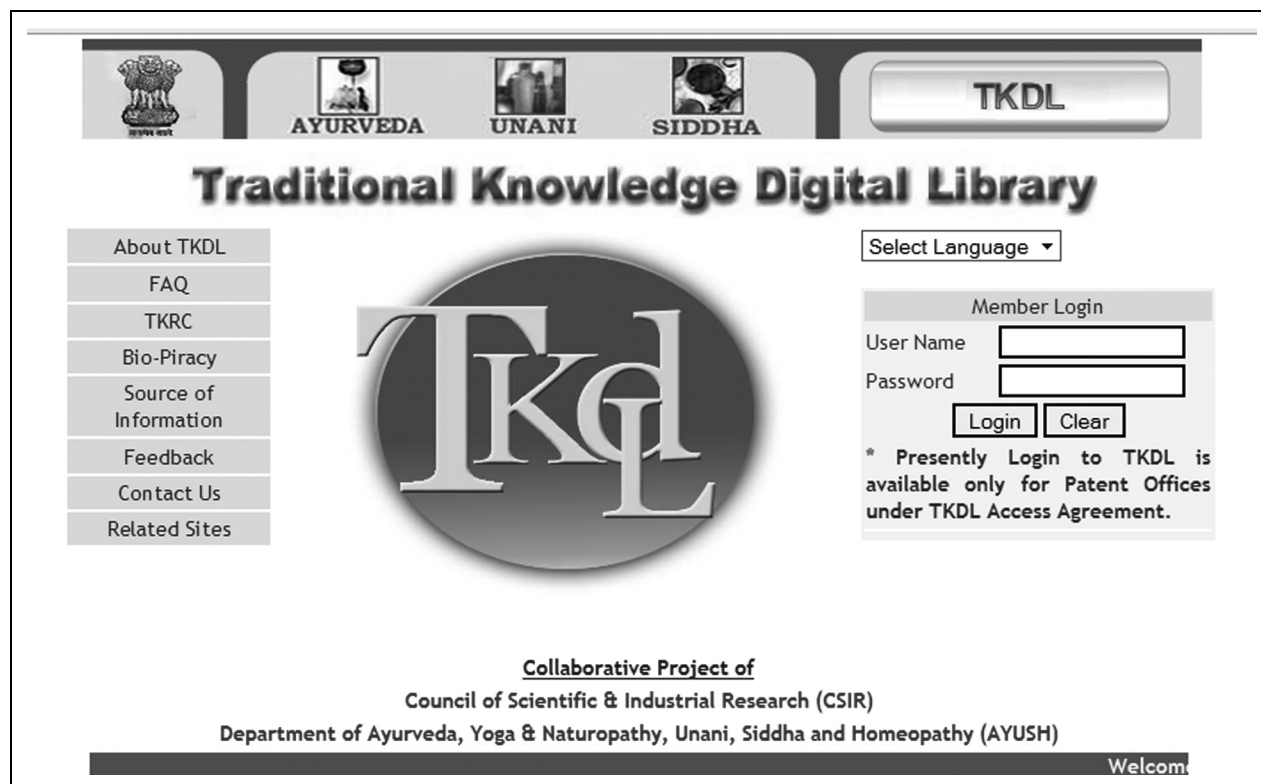


Figure 1. The TKDL interface.<sup>30</sup>

not been granted. Some 200–500 such patents are granted every year, mainly due to the lack of access to documented traditional knowledge in India. Every year, about 1,500 patents were being granted by the European Patent Office (EPO) and the US Patent Office, based on traditional Indian knowledge in medicine.<sup>20</sup>

Keeping in view the importance of such traditional medicinal knowledge, the Department of Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy (AYUSH) of the Indian government constituted an inter-disciplinary Task Force in 1999 for the preparation of an approach paper on establishing a Traditional Knowledge Digital Library (TKDL). Accordingly, the Government of India has undertaken the development of the TKDL database to prevent patenting of inventions based on Indian traditional knowledge (Figure 1).

TKDL aims to act as a bridge between the traditional knowledge existing in local languages and the patent examiners at various international patent offices. If TKDL had existed earlier, international disputes such as those referred to above would not have arisen. TKDL has also resolved the perpetual problem of lack of access to documentation on India's traditional medicine due to language barriers or formatting incompatibilities, thereby abating the loss of future revenue and resources. It is seen by India as a safeguard against the burgeoning research-based fields

of biopharmacology, integrative medicine (IM), evidence-based complementary and alternative medicine (CAM), ethnobotany, and ethnopharmacology.<sup>21</sup>

TKDL is a joint project of five Indian government organizations, including the Council of Scientific and Industrial Research (CSIR) and the National Institute of Science Communication and Informative Resources (NISCAIR). More than 150 traditional medicine practitioners, information technology engineers, patent examiners, intellectual property attorneys, scientists, researchers and librarians worked together to construct this database for India's indigenous medical and scientific knowledge resources which would fit within the framework of the International Patent Classification (IPC) scheme. The TKDL teams systematized and arranged the ancient and mediæval Indian medicaments in this database in accordance with modern conventions of taxonomy. The database is built up from transcribed texts of the triad of Indian medical sciences – Ayurveda, Unani and Siddha – transposed sacred slokas (verses), of 14 ancient texts from the 6<sup>th</sup> to the 3rd century BC Vedic corpus, and other authoritative Oriental canons and treatises.

Translation of palm leaf scriptural verses, parchment manuscripts, textbook citations and oral tradition references into decoded English, French, German, Japanese, and Spanish required Brahmi-based and



other non-Latin script conversions of Vedic Sanskrit, classical Sanskrit, Hindi, Arabic, Farsi/Persian, Dravidian Tamil and Urdu in accordance with international language encoding standards (ISO) and Unicode metadata. The TKDL team developed a 'smart translation' software to produce the scanned text and images from 54 primary sources on ayurvedic medicinal properties, provenance data, biological activity, chemical constituents, approximately 150,000 triad medicines and pharmaceutical preparations, 1,500 yoga asana therapies, traditional botanical names, malady descriptions, and other bibliographic details in contemporary terminology<sup>22</sup>. TKDL has completed documenting over 220,000 medical formulations (including 81,000 Ayurveda, 140,000 Unani and 12,000 Siddha formulations) and saved them from piracy. TKDL is a dynamic database, where formulations are continuously added and updated according to inputs from the users of the database.

The information on traditional medicines appears in a standard format in TKDL. For example, formulations on Indian Systems of Medicine appear in the form of a text, which comprises the name of the drug, origin of the knowledge, constituents of the drug with the parts used and their quantity, method of preparation of the drug and usage of the drug as well as bibliographic details. TKDL uses modern names of plants (e.g. *Curcuma longa* for turmeric), diseases (e.g. fever for jwar), or processes and establishes relationships between traditional knowledge and modern knowledge.<sup>23</sup> TKDL includes a search interface providing full text search and retrieval of traditional knowledge information using the International Patent Classification (IPC), Traditional Knowledge Resource Classification (TKRC) and keywords in multiple languages. TKRC, an innovative structured classification system for the purpose of systematic arrangement, dissemination and retrieval has been evolved for about 25,000 subgroups related to medicinal plants, minerals, animal resources, effects and diseases, methods of preparations, mode of administration, etc.<sup>24</sup> Search features of TKDL include complex Boolean expression search, proximity search, field search, phrase search, etc. The database does not claim exhaustive coverage and does not affect the rights and obligations relating to any prior art traditional knowledge formulation or know-how not listed in TKDL. Hyperlinks to other websites are provided for convenience only. This does not imply either responsibility or approval of the information contained in those websites.

The contents of TKDL are being digitally transcribed into a readable form in five international languages – English, French, German, Japanese and

**Table 1.** Current status of TKDL database<sup>i</sup>

Discipline	Number of texts (including volumes) used for transcription	Transcribed formulations
Ayurveda	75 books	85,500
Unani	10 books	120,200
Siddha	50 books	13,470
Yoga	15 books	1,098
Total	150 books	220,268

<sup>i</sup> Council of Scientific & Industrial Research (CSIR) (n.d.). *About TKDL Traditional Knowledge Digital Library (TKDL)*. Retrieved July 2, 2010, from <http://www.tkdil.res.in/tkdil/langdefault/common/Abouttkdil.asp?GL=Eng>

Spanish – with the objective of preventing their misappropriation at international patent offices. The status of transcription of the traditional medicine formulations in the TKDL as of May 2010 is given in Table 1.

India is going all out to save yoga, a 2,000-year-old Indian art of righteous living. The team of TKDL is presently scanning through 35 ancient Sanskrit texts, including the Mahabharata, Bhagawad Gita and the Yoga Sutras of Patanjali to identify and document all known yoga concepts, postures and terminology. Among the yoga books being scanned by scientists are *Hatha Praditika*, *Gheranda Samhita*, *Shiva Samhita* and *Sandra Satkarma*. Currently, 600 'asanas' (physical postures) have already been documented with a target to put on record at least 1,500 such yoga postures by the end of 2009. Till now, 130 yoga-related patents granted in the USA have been traced by TKDL.<sup>25</sup> Once the postures are put on record, they would be made available in five international languages. Besides photos and explanation of the postures, video clips of an expert performing them will be put in the TKDL. A voice-over will also point out which text mentions the posture.

In February 2009, the Indian government granted access to TKDL to the European Patent Office under a three-year agreement. The TKDL allows examiners at EPO to compare patent applications with existing traditional knowledge. New patent applications need to demonstrate significant improvements and inventiveness compared to prior art in their field. The cooperation between India and the EPO comes at a time when many countries are struggling to protect traditional and respected knowledge against exploitation, primarily in the pharmaceutical sector. The 34 member states of the EPO now have restricted access for purposes of patent search and examination. TKDL is integrated with the EPO's database as another measure to thwart illegitimately-gained exclusivity.<sup>26</sup> Experts

at the EPO say that access to the 30-million-page database will help them to correctly examine patent applications relating to traditional knowledge at an early stage of patent examination. One perceived flaw is the lack of accessibility to online backtracking of certificates of correction and defective patents. Patents are granted for new uses, innovative delivery systems, different combinations, and novel variations of chemical entities and properties.

The TKDL effort has also been appreciated at the international level as well. It has become a model for other countries on defensive protection of their traditional knowledge from misappropriation. Countries and organizations such as South Africa, the African Regional Intellectual Property Organization (ARIPO), Mongolia, Nigeria, Malaysia and Thailand have expressed their keen desire to replicate TKDL.<sup>27</sup>

## Conclusion

TK is part and parcel of the daily life of Indians. Very few countries in the world can boast of the variety and vastness of traditional knowledge that India has. However, this knowledge has been exploited throughout the world and is being exclusively patented by foreigners. Natives of India have protested against this, and have urged the government to take every measure to protect our traditional knowledge heritage. Libraries also can play a significant role in this regard as they are now implementing digitization projects for the preservation of our national heritage. However, projects like TKDL should be open for citizens to add new forms/cases of traditional knowledge which are still undiscovered by our scientists.

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# Assessing information literacy competency of Information Science and Library Management graduate students of Dhaka University

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## Abstract

The aim of this study is to assess the information literacy competency of Information Science and Library Management (ISLM) graduate students at the University of Dhaka, Bangladesh, and to determine their strengths and weaknesses. In general it was found that students had limited skills in the area of information literacy, as it is not discussed extensively in their academic course curriculum. This study urges the incorporation of an information literacy programme in the course curriculum, and more writing, discussion and other relevant issues that will make the students more information literate.

## Keywords

information literacy, university students, information science students, library management students, Dhaka University, Bangladesh

## Prologue

In the age of the information explosion, there is no doubt that the Internet and other web technology has improved access to information. As more information is available on the web, people need the skills and knowledge to find, access and use it effectively. As a result, information literacy is gradually becoming a necessity in the information world. The term 'Information Literacy' (IL) refers to the broad set of skills and understandings that enable a person to recognize information needs, decide which resources will best answer those needs, know how to use the resources effectively, and evaluate the information they found (Bundy, 2004). The importance of information literacy has attracted growing recognition and a number of attempts have been made to characterize it in a more precisely measurable framework. Information literacy is recognized as lifelong learning and has its roots in library education. In accordance with the overall change of society as a whole and the structural change in libraries' information resources, we need

to move from traditional library instruction to information literacy education (Lars, 2001). Information literacy education is becoming important to students, researchers and information professionals due to the proliferation of electronic resources and the use of the Internet as an information source. It is critically important because we are surrounded by a growing ocean of information in the conventional as well as the virtual world. In the information world, not all information is equally authoritative, current and reliable; some is biased, out of date, misleading, controversial and false. These circumstances create challenges for both information professionals and students who deal with information in all its spheres. There is a

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need to make an avenue for people to use these resources conveniently. Developing information literacy education, awareness and skills could be an innovative way to help people identify when information is needed and to locate, evaluate and use the needed information effectively (Association of College and Research Libraries, 2000).

In a nutshell, an 'information literate' individual is able to:

1. determine the extent of information needed for certain purposes
2. access and retrieve the needed information effectively and efficiently
3. critically evaluate information and its sources
4. incorporate selected information into one's knowledge base
5. use information effectively to achieve specific purposes
6. use information with understanding and acknowledging the cultural, ethical, economic, legal, and social issues surrounding its use (Doyle, 1992).

In Bangladesh, the issue has recently become popular and various researchers and specialists are working on this subject. Bangladesh is one of the least developed and overpopulated nations in the world with 153,546,896 people (July 2008 estimate) (Central Intelligence Agency, 2008) living in an area of 147,570 km<sup>2</sup> (Bangladesh Bureau of Statistics, 2001). It is most completely surrounded by India, except for a short southeastern frontier with Myanmar and a southeastern coastline on the Bay of Bengal. It is mainly a rural and agro-based country. The country has been struggling to meet the basic needs of its people with respect to food, clothing, shelter, health, education and the like. But the country is facing various social problems like a population explosion, natural disasters, gradual increase of unemployment, malnutrition, mass illiteracy and so on.

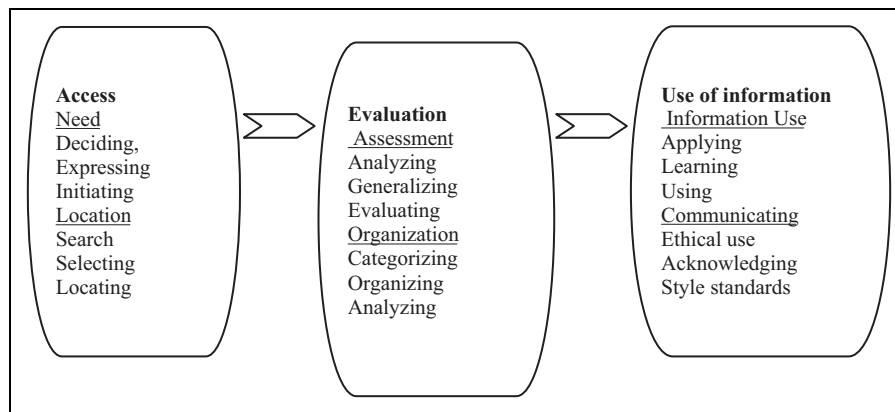
According to a Literacy Assessment Survey (LAS) conducted by the Bangladesh Bureau of Statistics (BBS) in 2008, Bangladesh's adult literacy rate reached 48.8 percent in 2008, 7.3 percent up from that of 2005, as the literacy rate among females for the first time surpassed that among males. Out of the 48.8 percent literate population, 48.6 percent are male while 49.1 percent are female (Kabir, 2009).

### Literature review

Many countries have recognized the importance of information literacy skills among their citizens

and have implemented programs to inculcate the necessary competencies and skills among students at all levels. In the United States, the National Forum on Information Literacy, established in 1989, and the Institute for Information Literacy, established in 1998, have been instrumental in formulating information literacy standards for the school and higher education sectors. The US Department of Education has included information literacy as one of the country's five goals in education since December 2000. Information literacy developments have also taken place in Canada, China, Japan, Mexico, Namibia, New Zealand, Singapore and South Africa (Bundy, 2002).

Research on information literacy among students in higher education has been carried out since the 1980s using various methodologies, including surveys, interviews, focus groups and tests (including pre- and post-tests). The survey method was the most frequently employed, as seen in major studies by Kunkel, Weaver and Cook (1996) and Maughan (2001). Kunkel, Weaver and Cook carried out a survey among 245 undergraduates of Kent State University regional campus in the United States to assess the basic skills of incoming undergraduates and how students' characteristics affect these skills. Maughan's study reported that between 1994 and 1999, the University of California at Berkeley conducted an ongoing survey of information competencies in selected academic departments, namely political science, history, sociology and philosophy, in order to measure information literacy among graduating seniors. Other studies using survey methods among students on US campuses include those conducted by Brown (1999) at Oklahoma University to explore the information literacy level of physical science graduate students; Nero (1999) at four Pennsylvania State System of Higher Education universities using a questionnaire as the instrument among graduating teachers; and Case-Smith and Powell (2003) to assess whether graduates of the occupational therapy programme of Ohio State University were applying the information-seeking skills they had learnt as undergraduates. All of the above studies used quantitative methods for data collection and analysis. A rarely used methodology – a qualitative study – by Hepworth (1999) among students at Nanyang Technological University in Singapore is quite unique in its attempt to determine respondents' strengths and weaknesses in terms of their information literacy and skills. Based on the findings, recommendations were proposed to help develop information literacy skills and incorporate their delivery in the university curriculum, and not to treat it as a separate subject.



**Figure 1.** Information literacy competency features.

### Assessment and standard of information literacy competency

Assessment of the information literacy program is important so that its impact on students can be measured, including the quality of student research produced before and after the program. In assessing the program, the Association of College and Research Libraries (ACRL) Information Literacy Competency Standards for Higher Education (Association of College and Research Libraries, 2000), Information Literacy Assessment-UW-Whitewater (UW-Whitewater University Library, 2005), Liberal Studies Information Literacy Test (The Library's blog, 2009) and Monash University Library (Monash University, 2003) questionnaires were used. The *Guidelines on Information Literacy* (Association of College and Research Libraries, 2000) have been compiled on behalf of the Information Literacy Section of IFLA, "with the aim of providing a pragmatic framework to library professionals". According to these guidelines, information literacy covers three basic components: access, evaluation and use of information. These core goals are found in most of the standards created by library associations and individual educators (Byerly and Brodie, 1999) such as the relevant contributions of the American Association of School Librarians (AASL), the Association of College Research Libraries (ACRL), the Society of College, National and University Libraries (SCONUL) and the Australian and New Zealand Institute for Information Literacy (ANZIIL) followed by the work of other countries, like Mexico (Lau, 2004). The IFLA information literacy standards are based on these international experiences and contributions that are fully described in the bibliography at the end of the document. The IFLA standards are grouped under the three basic information literacy competencies which are shown in Figure 1. The three basic competencies are further categorized with some features.

#### A. Access

The user accesses information effectively and efficiently; this covers the following:

##### *Definition and articulation of the information need*

- i. defines or recognizes the need for information
- ii. decides to do something to find the information
- iii. expresses and defines the information need
- iv. initiates the search process

##### *Location of information*

- i. identifies, and evaluates potential sources of information
- ii. develops search strategies
- iii. accesses the selected information sources
- iv. selects and retrieves the located information

#### B. Evaluation

The user evaluates information critically and competently; this focuses the following:

##### *Assessment of information*

- i. analyzes, and examines, extracting information
- ii. generalizes and interprets information
- iii. evaluates accuracy and relevance of the retrieved information

##### *Organization of information*

- i. arranges and categorizes information
- ii. groups and organizes the retrieved information
- iii. determines which is the best and most useful information

#### C. Use

The user applies/uses information accurately and creatively in the following ways:

**Use of information**

- i. finds new ways to communicate, present and use information
- ii. applies the retrieved information
- iii. learns, or internalizes information as a personal knowledge
- iv. presents the information product

**Communication and ethical use of information**

- i. understands ethical use of information
- ii. respects the legal use of information
- iii. communicates the learning product with acknowledgement of intellectual property.

From the above guidelines, it becomes clear that information literacy competencies in the education world are:

- providing an approved method that can guide students to various developing sources of information
- supporting the nation's attempt to increase the quality of education
- providing extra facilities and tools to strengthen university studies and increasing the life learning lesson (California State University, 2004).

Schools and institutions of higher education worldwide have implemented different information literacy standards and guidelines. These documents not only list the information-related competencies that students ought to possess and exhibit, but also make recommendations as to how these competencies can be integrated within school curricula (Gausul, 2006). In a 2003 regional workshop organized by the International Federation of Library Associations and Institutions (IFLA) and the United Nations Educational, Scientific and Cultural Organisation (UNESCO) that involved seven countries in Southeast Asia, the participants recommended to UNESCO for Southeast Asian countries to jointly improve IL education in schools (Singh, et.al., 2005). Generally, it was found through the surveys conducted in the seven Southeast Asian countries that IL standards in these countries were low. Only half of the respondents indicated that their institution had a policy statement on information literacy, although it was rarely implemented. IL training for educators was somewhat low across all schools in the region. There was generally a lack of leadership for IL standards and implementation in these countries (Mokhtar and Majid, 2008). In October 2005, at Punjab University in India, an international workshop was held to improve educators' understanding of the importance of IL in teaching and learning, developing strategies in educational institutions to incorporate IL within the

curriculum, and generating appropriate IL standards and guidelines in the respective countries within the region, among others. More than 65 delegates attended from Bangladesh, India, Malaysia, Nepal, Pakistan, Singapore, Sri Lanka and Thailand (Punjab University, 2005). The workshop revealed that a few of the countries have information literacy courses in their academic activities and these countries are making plans to comprehensively introduce these curricula in their institutions.

**Information literacy and Bangladesh perspectives**

When comparing developed and developing countries regarding the promotion and implementation of information literacy, we see that developed countries have a plethora of IL curricula and syllabi, which is the opposite to the situation in developing countries (Pejova, 2002). As a developing country, in Bangladesh there is still largely a lack of professional and management level awareness on developing strategies for IL education and there is a severe lack of information literacy guidelines and standards in academic institutions. The concept is almost absent in higher academic institutions and many library professionals do not know the meaning of information literacy (Gausul, 2006). In 2009, the Independent University of Bangladesh (IUB) for the first time arranged an International Workshop on Information Literacy under the patronage of IFLA. The objective of the workshop was introducing the concept of information literacy in Bangladesh and other SAARC countries, providing hands on training on information literacy, building the capacity of library professionals in the SAARC regions and making them competent to run information literacy programmes after the training. The target group was library professionals in Bangladesh and other SAARC countries, but the workshop was not limited to this region. (Independent University of Bangladesh, 2009).

**Background of the study**

In this paper we focus on assessing the information literacy competency of Information Science and Library Management graduate students at the University of Dhaka, determining their strengths and weaknesses and conducting a study on information literacy. In Bangladesh, there are now 51 private and 31 public universities; Dhaka University is the largest (University Grants Commission, 2010). On 1 July 1921 the University of Dhaka opened its doors to students with Sir P.J. Hartog as the first Vice-Chancellor. The University started its activities with 3 Faculties,

**Table 1.** Programs offered by the Department of Information Science and Library Management.

Level of education	Nomenclature	Duration of course	Name of degree
Bachelor	Bachelor of ISLM	4 years (8 semesters)	BA Honours
Masters	Master of ISLM	1 year (2 semesters)	MA
Masters (Evening)	Master of ISLM	2 years (4 semesters)	MA (for professionals)
Research	Master of Philosophy	2 years	MPhil
Doctorate	Doctor of Philosophy	3 years	PhD

Source: (Syllabus, 2006) ISLM: Information Science and Library Management.

12 Departments, 60 teachers, 877 students and 3 dormitories (Halls of Residence) for the students. At present the University consists of 13 Faculties, 66 Departments, 8 Institutes, and more than 30 Research Centres. The numbers of students and teachers have risen to about 33,000 and 1,500 respectively (University of Dhaka Prospectus, 2008). Two public universities, Dhaka and Rajshahi, and some private universities and institutions are now offering library and information science education. (Islam and Chowdhury, 2006). The Department of Library Science at Dhaka University was established in 1959, offering only a Diploma Course. Later, it also offered a Masters Degree in Library Science. In 1987, the department changed its name to Department of Library and Information Science and started offering a BA Honours and a masters course. The department changed its name again in 2002 to Department of Information Science and Library Management (Dhaka University Academic Calendar, 2009). Now the department is offering the programmes shown in Table 1.

The department publishes a journal, *Bangladesh Journal of Library and Information Science*. The seminar library has hundreds of books, theses and others reading materials. The department also has a computer lab where users have access to both the computers and the Internet. But it is not free, as students have to pay for using the facilities. The most significant problems are the lack of sufficient computers and accessories, an acute space problem, interrupted power supply and low speed of the Internet. Presently, the department has 14 full-time and 3 part-time faculty members and 350 students, of whom 60 are graduates. The research areas include Classification, Cataloguing, Library networking and Resource Sharing, Information Production and Marketing, Comparative and International Librarianship, Documentation and Information Retrieval, Information Systems and Services, Library Resource Management, Knowledge Management, Bibliometrics, Digital and Electronic Libraries, Information Needs and Seeking Behavior, and Library Public Relations, Information Sources and Services, Reference Services, Indexing and Abstracting, System Analysis and Design

and Database Design (Dhaka University Academic Calendar, 2009).

Information literacy is absent from the ISLM syllabus. Sometimes the department conducts user education or library orientation programs for the students. As part of their academic activities, student advisers sometimes take some classes on how to use the catalogue and search for books in the library. Studies have been conducted on user education, information retrieval techniques and human factors in students' Google searching, but there has been no study conducted on the information literacy perceptions and skills of Dhaka University students.

IL education and practice in other universities, both public and private, is absent; these universities do not have any curricula or awareness about IL education. The concept of information literacy is becoming popular due to different workshops, writings, forums and reporting in national dailies. The United Nations Information Center (UNIC), with the collaboration of some professionals and university faculties, is conducting different programs based on information literacy (Salam and Islam, 2008–2009).

It is believed that this study will open another avenue for students, researchers and professionals to adopt new concepts. This is the first time that an effort has been made in the department to assess the IL competency of ISLM graduates. It is hoped that the study will trigger more research on information literacy in Bangladesh.

### Objectives of the study

The primary objective of this study is to assess the information literacy competency of graduate students of Information Science and Library Management in the University of Dhaka. The study aims to:

- discuss different information literacy measurement tools;
- assess the information literacy competency of the students;



- identify the weak areas in the information literacy course of the Information Science and Library Management department;
- identify the problems and formulate proposals for developing the information literacy curriculum to enhance the students' information literacy competency.

### Methodology

For this survey, in early May 2009, all ISLM graduate students were contacted in their scheduled classes and given an explanation of the study. In order to assess their information literacy competency an open and closed-ended questionnaire was designed comprising 20 questions in the English language (Appendix 1). The following dimensions were measured by the survey: perception of information literacy; information literacy course curriculum; weaknesses in the syllabus and some other relevant areas of IL. Questions were designed to encourage contributions and emphasis was placed on obtaining the respondents' opinions or valuable insights. To maximize the response rate, students were advised that their responses would be completely anonymous and the data would only be used for the purposes of this study. Out of 60 students, 50 completed the survey and the response rate was 83 percent. SPSS software was used to compile and analyze the survey data

In a second stage, a form was created to measure the information literacy competency and the three basic information literacy components were analyzed in group discussions. A limited number of respondents were selected to participate in this process, using the following criteria:

- regular and punctual students who have good academic records
- actively/fully involved and have research experience
- have done several literature studies
- willing to participate in the research as a respondent.

Only 10 out of 50 students met these requirements. The results of the face-to-face discussions with these students are shown in Table 3.

### Information literacy competency of ISLM graduate students

Before going on to measure the information literacy competency of ISLM graduate students, we need to examine the existing postgraduate curriculum of the ISLM department (see Table 2).

Table 2. MA syllabus (1 year) in Information Science and Library Management.

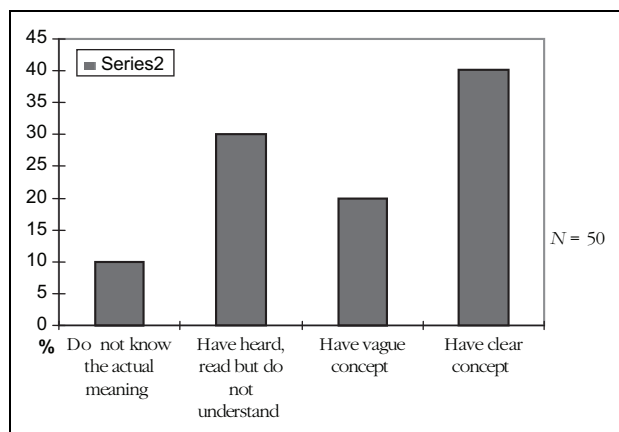
Course No.	Course title
ISLM 501 and 501(A)	Advanced Classification (Theory) and Practical
ISLM 502 and 502 (A)	Advanced Cataloguing (Theory) and Practical
ISLM 503	Internet Studies and Web Design
ISLM 504	Information Retrieval Techniques
ISLM 505	Library Systems and Services
ISLM 506	Library Software Packages: Design and Applications

Source: Information Science and Library Management, Syllabus, 2006.

The ISLM department in Dhaka University is the main body of the country in terms of providing LIS education. Graduate students of ISLM are expected to be information literate and able to conduct library research. Table 1 shows that the syllabus does not contain any course related to information literacy. Neither does the department offer information literacy training, bite-sized teaching materials, guides and online tutorials or any IL program for students or professionals. A clear and common understanding of information literacy still needs to be addressed in the ISLM graduate syllabus. Research into information literacy at the department has been limited. Both the undergraduate curriculum and the graduate curriculum offer opportunities to develop information literacy skills within the learning areas. However, there is a need for a separate statement of information literacy outcomes or guidelines.

The question to the students was, do they have any concept about information literacy? It was found that most of the students were familiar with the concept. It emerged from observations and discussions that many of the students had heard the term but did not know the meaning. The responses brought some surprises and highlighted some of the assumptions that existed among the students. It appeared that they know the different concepts related to information literacy, i.e. user education, bibliographic instruction and so on, but they are not familiar with the term 'information literacy'. Figure 2 shows the general concepts of information literacy among the ISLM graduate students.

Figure 2 shows the levels of understanding of the information literacy concept among ISLM graduate students in the Department of Information Science and Library Management. At the outset, it may be observed that 10 percent of the respondents said they did not know the actual meaning of information literacy. On the other hand, 40 percent believed that



**Figure 2.** Information literacy concepts among ISLM graduate students

they did have a clear concept of information literacy, while 30 percent had heard or read about, but did not understand, the concept and 20 percent had only a vague concept, which means they know about information literacy but the concept is wrong. Overall, a majority of the graduates (60 percent) did not have a clear concept of information literacy and only 40 percent did have a clear concept.

### Formulating Search Queries

To assess their ability to formulate search strategies, students were asked to identify the correct search query to represent the shaded area in Figure 3, which represents the use of the Boolean operator AND.

Only 30% of the students correctly identified the AND operator; 50% thought the OR operator (cats OR dogs) was the correct one, while 20% identified the NOT operator (cats NOT dogs) that should be used. The results show most of the students (70%) do not understand correct query formulation through the use of Boolean operators.

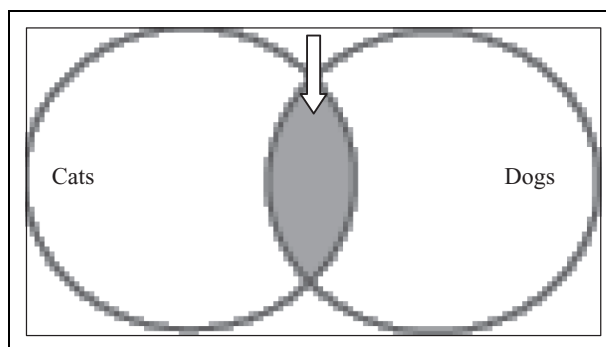
### Perception of Online Index

To assess their ability to use online indexes, the students were asked to identify the nature of an item described in the online index entry shown in Table 3.

The results showed that most of the students (60%) were able to identify the item correctly as a journal article. However, 20% identified the item as a book, 10% as a newspaper article and 10% as a government paper.

### Advanced query formulation

In order to assess their ability to find specific information through advanced level search formulation,



**Figure 3.** Formulating search queries.

**Table 3.** Understanding of an online index entry.

Title:	A comparison of usability techniques for evaluating information retrieval system (IR) interfaces
Authors:	Ahmed, S.M.Z.
Source:	<i>Performance Measurement and Metrics</i> 2008, Vol. 44 (1), 48–58
Document Type:	Article
Subject Terms:	* <u>Usability</u> * <u>Evaluation</u> * <u>Information Retrieval Technique</u> * <u>User Interface</u>

**Table 4.** Advanced search query.

Query formulation	Responses (N = 50)
A. Juvenile Crime	10 (20%)
B. Juvenile\$ OR Child\$ or Teen\$ AND Crime\$ Criminal\$	5 (10%)
C. Juvenile AND Crime	20 (40%)
D. Juvenile OR Crime	15 (30%)

students were asked to identify which of four search statements on Juvenile Crime would produce the most results. The results are shown in Table 4.

Table 4 shows that only (10%) made the right query formulation using truncation and Boolean operators. Thus most of the students (90%) did not know how to formulate the query correctly.

### Results of interviews

Ten master's degree students who had to prepare theses for their degree were interviewed with a view to identifying their strengths and weaknesses in respect of key aspects of information literacy. The results are summarized in Table 5.

**Table 5.** Information literacy capabilities of ISLM graduate students writing theses.

Ability	Result	Difficulties	Category
Category 1. Stating the information need.	Stating the need for information by identifying the concepts or keywords that represent the information needed, translating topics into more specific terms, and brainstorming the topic of the research.	Not accurate in determining the information needed. Not quite understanding the subject of the research so it becomes difficult to find the right information	<u>Development</u> Informant isn't able to determine the information need independently.
(a) Determining the need for information (N = 10. Yes 3, No = 7)			
(b) Identifying the various sources of information (N = 10. Yes 7, N = 3)	Selecting sources of information based on the uses that will be gained. Using various sources of information. Selection of the information is done objectively.	—————	<u>Competent.</u> The informant is able to choose from various sources of information with a certain consideration and has no difficulty to applying.
Category 2. Effectively and efficiently accessing the information needed.	Able to determine the right retrieval aid. Able to use OPAC and other search engines. Able to use various ways to find printed information such as with search engines. Search engines that can be used are Google, Yahoo, Hot Bot, AltaVista and so on. Besides search engines, informants use educational electronic journals.	Synthesizing self-created concepts with concepts used in the system may end in not finding the information needed. Non-technical difficulties such as financial difficulties, internet errors, passwords, the books needed are not available, not owning a floppy disc	<u>Development</u> Informant is not able to select the right retrieval aid.
(a) Selecting the right retrieval aids. (N = 10. Yes = 9, N = 1)			
(b) Creating and implementing a searching strategy (N = 10. Yes = 8, N = 2)	Informant is able to create and implement an effective searching strategy by determining a selected term to represent the need of information, the use of Boolean logic (and, or, not), quote signs, synonyms, asterisks, wildcard, truncation reading the web site's help feature and following the provided links.	Did not operate basic search tools and advance level search tools.	<u>Development.</u> Informant is not able to create and apply a searching strategy.
(c) Storing information (N = 10. Yes = 6, N = 4)	Informants organize information that they have gained in order to make in more systematic. The technology that is used to store information gained on the internet is by saving it directly to the computer or by using a disc, download, using a word processor program, printing and copy paste methods. For printed information, informants use photocopiers, scanners and so on.	—————	<u>Competent</u> An informant is able to store information well and has no difficulties in applying the technique.

(continued)

**Table 5. (continued)**

Ability	Result	Difficulties	Category
Category 3. Critically evaluating information and its sources. (a) Synthesizing the main idea (N = 10. Yes = 1, N = 9)	Able to explain the steps to synthesize the main idea In applying, informants have difficulties in synthesizing the main idea	Does not possess adequate understanding about the specified terms. This difficulty is because informants are writing about a new topic that they never knew about before.	<u>Development</u> Informants find it hard to synthesize the main idea by themselves, this is indicated with the difficulties that they face.
(b) When their needs of information are fulfilled. (N = 10. Yes = 10, N = 0)	Informants feel that their needs for information have been fulfilled when their anxiety has disappeared, when curiosity has been achieved and when the academic guider feels that there is adequate information		<u>Competent</u> Informants are able to determine when their needs of information have been fulfilled and have no difficulties in the implication.
Category 4. Using the information to complete a certain goal. (a) Use of current and recent information (N = 10. Yes = 8, N = 2)	Informants use recent information as their start their writing and use their new information to develop it, to compare and use it to change searching strategies	What is written isn't relevant to the actual topic Wrong positioning of information	<u>Development</u> Informants are unable to use current and recent information; this is indicated by the difficulties experienced during the implementation

Source: (Group discussion, face to face Q and A session and author himself made a form with focusing four categories question).

## Findings

In general, the information literacy competency of ISLM graduate students is not in a good position. Table 2 shows that, in most of the categories, the students are not competent though the sample was very small. The main reason for this is that at present no information literacy course is included in the graduate syllabus. It has become clear that there is a need to add more information literacy courses to the syllabus. Many of the students expressed their opinion that the present syllabus does not cover all of information literacy. The study showed that the subjects in the existing syllabus that have the biggest effect in increasing the students' information literacy capability are: information sources and services, bibliographic services, information organization, thesaurus, bibliographic instruction, information retrieval techniques and Internet studies. It is apparent from the responses that the knowledge needed for increasing information literacy capability, such as how to access information, when information is needed and how to use advanced level search formulations, is not discussed in the present syllabus.

## Propositions for increasing information literacy competency of ISLM graduate students

The following recommendations can be made to improve information literacy competency among ISLM graduates.

### Framework

As information literacy is a relatively new concept in Bangladesh, the program should be initiated in primary and junior level schools in selected rural and urban areas. An information literacy programme should also be incorporated in the secondary and higher secondary curricula. A framework for the development of national information literacy competency standards and an assessment tool for higher education need to be prepared. There is a need to formulate a national standard that can be used as a benchmark for the preparation and delivery of information literacy programmes by all Bangladeshi institutions of higher education. Bangladesh has the option of either developing totally new standards or adapting existing standards to suit national needs.

### *Building a committee*

A National Committee on Information Literacy should be formed under the Ministry of Education and the University Grants Commission of Bangladesh to be responsible for designing, coordinating and evaluating the proposed nationwide program. Senior and experienced faculty members who have deep knowledge on information literacy need to be incorporated into this committee. The committee should include teachers, librarians and information professionals, educationists, civil society members and education administrators. The ministries of Education, Information and Cultural Affairs should be engaged in the implementation of the program.

### *Collaboration*

Different librarians (seminar, university and others) involved in training must collaborate with the faculty and students on a regular basis. There should be increased collaboration and cooperation between the Department and other LIS organizations to bring together their intellectual and entrepreneurial expertise and experience. This is the only way to achieve the objective of creating as many information literate individuals as possible in the department of Information Science and Library Management in Dhaka University.

### *Revise the ISLM curriculum*

It appears from the existing graduate syllabus of ISLM that there is no course content on information literacy. It was found from the study that the IL perceptions of ISLM graduates are low. There is a need to adopt the courses shown in Table 6 to ensure better information literacy competency among the ISLM graduate students. These courses may be included from first year to master's levels with different credit hours. The courses were initially introduced in Malaysian universities.

Initially, the proposed curriculum should be applied for the ISLM students of Dhaka University, and later applied for all students (undergraduates and graduates) as there are no information literacy courses in the undergraduate syllabus. This curriculum may also be applied by other public universities and private institutions which are offering LIS education in Bangladesh, as no other universities offer information literacy courses in their present syllabuses. The curriculum may be revised and further content added after being adopted in other LIS syllabuses.

From Table 6 it may be concluded that the ISLM department should conduct four types of programmes for their students. These programmes are;

1. Orientation for all new undergraduates/postgraduates.
2. Information skills programmes for final year undergraduates and graduates.
3. Specialized information skill programmes such as use of databases, internet searching skills.
4. Information literacy/ skills courses which are credited and compulsory or offered as an elective.

The orientation programmes will be compulsory for all new students and are usually held at the beginning of every academic year or semester. Throughout the year, the department will organize other programmes with the aim of familiarizing the students with the various tools available within the libraries or others way. Special programmes may be organized for the final year and postgraduate students who are embarking on research projects or academic exercises with the aim of preparing them for the research.

### *Training programs*

Intensive and extensive training programs should be organized for teachers and information professionals; they should be introduced to modern techniques and technologies of information production, processing and distribution, so that they can become proper guides for the students in acquiring information literacy skills.

### *Building awareness programme*

A massive awareness raising campaign should be initiated in the Department about information literacy and its significance. As Figure 1 shows, only 40% of ISLM graduates in the department have a clear concept of information literacy; there is more work to do and more steps need to be taken to spread the concept among the ISLM graduates. ISLM management can arrange various promotional activities like workshops, seminars and group discussions for adopting the concept themselves.

### *Monitoring progress*

Students should be given assignments to check whether they are achieving and developing information literacy skills. They should be instructed and guided to attain information literacy skills in a logical manner and master these skills to complement their academic progress.

### *Extensive training on ICT literacy*

ICT training modules should be integrated with the information literacy programs so that students can

**Table 6.** Proposed Information Literacy Curriculum.

	Orientation	Miscellaneous	Final year/student doing research	Credit hours
<b><u>STATUS AUDIENCE</u></b>	<b><u>Compulsory</u></b> New Students	<b><u>Optional</u></b> All students	<b><u>Optional</u></b> Final year students and postgraduates	<b><u>Compulsory or Optional</u></b> First year or others
<b>PROGRAMME CONTENT</b>	<ul style="list-style-type: none"> <li>• Basic Library Skills</li> <li>• Library Skills Course</li> <li>• Library Orientation</li> <li>• Basic Library Skill Class</li> <li>• Library Instruction Pro.</li> <li>• Introduction to Library Use</li> <li>• Library Usage Workshop</li> <li>• Skills in Using Academic Resources</li> <li>• Orientation Programme For New Students</li> </ul>	Information literacy Skills Classes/Workshop Information search skills training sessions/workshop Information Search Skills Information search strategy Library catalogue Library usage workshop Navigating the internet CD-ROM databases searching skills Online databases searching skills Research information service Using-in-house databases	Advanced information skills programme Advanced library skill classes Library research skills Online databases searching skills Research guidance services Workshop on information skills.	Bibliographic databases and information skills (1 credit). Information skills courses (1 credit) Information literacy (2 credits) Managing resources center (1 credit)
<b>DELIVERY METHOD</b>	Lecture Guide tour Instructional session Video presentation Exercises Multimedia presentation	Lecture Instructional session Exercise	Lecture Instructional session Exercise	Lecture Instructional session Exercise

Source: Edzan and Sharif Mohd Saad (2005).

effectively utilize computing and telecommunications techniques for better fulfilling their information needs.

### **Student recommendations**

In the questionnaire, students were asked to give their suggestions for incorporating information literacy in the programme. These are:

- As the existing syllabus does not include any information literacy courses they expressed their opinions that management of the department should start an information literacy programme immediately.
- Provide more trained and skilled library personnel in seminar library and enrich computer lab of ISLM.
- Extend practical programme in information retrieval techniques and provide information literacy guidelines for the students so that they can become more information literate.
- They also put their demand to introduce practical sessions in their classes.

### **Summary**

In order to ensure that students at all levels of learning acquire information skills it is necessary to follow a course of action that includes the following:

- a. make learning and teaching interactive
- b. recognize diversity in learning styles
- c. become facilitators of life-long learning rather than keepers of information
- d. handle information as a valuable business commodity
- e. keep current with the latest information technologies
- f. develop curricula that integrate information skills into all instructional programmes
- g. work with education departments, government bodies and community organizations to establish policies and set national and regional goals for information skills acquisition for all levels of the population (Rader, 2002).

In addition:

- Students have to obtain an adequate amount of learning material about information literacy. Therefore, tutorial material has to be designed to supplement their information literacy capability.

- Difficulties experienced by students in information literacy have to be handled by giving enough understanding and wide opportunities.
- The facilities that are provided by the Department should be more extensive. Information searching facilities such as computer labs can be used optimally by repairing the Internet network and release students from any charge for the service. This would have a big impact on their ability to gain experience of searching and learning ICT knowledge.

### **Conclusion**

Now there is no doubt that information literacy has gained importance as we become more immersed in the information age. The ability to assess, evaluate and use information is a prerequisite for lifelong learning and education. Whenever it comes from, the Internet, the library or any other source, the most important thing is the ability to understand and evaluate information (Council of Australian University Librarians, 2001). This study showed that ISLM graduate students are not in a good position as regards their understanding of the concept of information literacy and the students are facing considerable challenges in the areas of information literacy. Some recommendations were proposed for improving and increasing the information literacy competency of ISLM graduate students. If the ISLM management can successfully implement the programme in the department (discussed in Table 5), it will definitely usher in a new era of development. We must start working now to become a proud partner in the knowledge-based world of tomorrow. It is, however, not the sole responsibility of the tertiary institutions to foster this area of knowledge and expertise. Primary and secondary schools also need to incorporate essential information literacy courses and other activities of information literacy for developing the overall situation of the country. More and more writings, discussion and strategy need to be adopted for building an information literate society. The stakes are too high to ignore.

### **Acknowledgment**

The authors are grateful to all of ISLM graduate students and department personnel who have been associated themselves for this research and extended their helping hands in different ways. Authors are entirely grateful to Stephen Parker for his invaluable comments and suggestions which led to significant improvement of this paper.

## Appendix I

### *Assessing Information Literacy Competency of ISLM Graduate Students of Dhaka University*

[Read the questions carefully and give your opinion. Your responses will be used only for this study. Please feel free to express your frank opinion on all issues; your responses are entirely anonymous]

[Instructions: Please circle the letter for the correct answer]

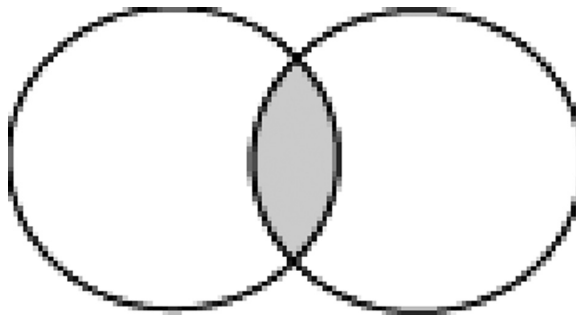
1. Where would you look for an introduction to a topic such as farming?
  - A. The library catalog
  - B. An encyclopedia
  - C. A periodical
  - D. An almanac
  
2. For the most current information about a topic need to consult:
  - A. Books
  - B. Periodical articles
  - C. Encyclopedia articles
  - D. Bibliographies
  
3. How would you decide if a book contains information on your topic?
  - A. The title includes the words of my topic
  - B. Find the book and see that the table of contents lists a chapter on my topic
  - C. Find the book and see that my topic is listed in the index
  - D. All of the above
  
4. Plagiarism is presenting the work of others as though it were your own; it is a form of theft. Which of the following is an example of plagiarism?
  - A. Using phrases and sentences of others as if they were your own without giving credit
  - B. Using ideas of others as if they were your own without giving credit
  - C. Copying text written by someone else and using it with no quotation marks
  - D. Rewording someone else's information and using it without giving credit
  - E. All of the above
  
5. In case of finding research article which Google feature will you use?
  - A. Google
  - B. Google scholar
  - C. Youtube
  - D. I'm feeling lucky
  
6. What do know about information literacy?
  - A. Information literacy – the ability to find and use information – is the keystone of lifelong learning
  - B. Information literacy is the ability to recognize the extent and nature of an information need, then to locate, evaluate, and effectively use the needed information.
  - C. Both A and B
  - D. I do not know
  
7. Which of the following statements are true about Wikipedia?
  - A. Wikipedia, the information is not necessarily accurate and reliable.
  - B. Wikipedia is a good place to start when you want to find general information about a topic.
  - C. Wikipedia should not be used without verifying the information in reliable sources such as primary research articles, review articles, field guides, websites and databanks that are produced by recognized research organizations.
  - D. All of the above
  
8. The following citation is for a periodical article. Identify the parts of the following citation by matching the numbers with the descriptions below.



<sup>1</sup>Mann, Susan. <sup>2</sup>“Myths of Asian Womanhood.” <sup>3</sup>Journal of Asian Studies <sup>4</sup>59 <sup>5</sup>(2000): <sup>6</sup>835-62.

\_\_\_\_ date of publication      \_\_\_\_ volume number      \_\_\_\_ page number(s)  
 \_\_\_\_ author      \_\_\_\_ periodical title      \_\_\_\_ article title

9. The following keyword search did not get many results: “juvenile crime”. Which of these keywords search would probably find more results on the same topic?
- “juvenile crime”
  - (juvenile\$ or child\$ or teen\$) and (crime\$ or criminal\$)
  - juvenile and crime
  - Don’t know
10. A citation is a
- A brief paragraph that summarizes what a book or article is about.
  - A book review
  - Description of an electronic database
  - A record of the identifying elements of a book, journal, or website.
11. Here is a drawing of a search strategy. What does the highlighted area represent?



- Articles about cats OR articles about dogs
  - Articles about cats NOT articles about dogs
  - Articles about cats AND articles about dogs
  - Articles about cats = articles about dogs
12. A peer-reviewed journal contains:
- Articles written at a level useable by people my age.
  - Articles written and reviewed by experts in the field.
  - Book reviews.
  - Daily entries written for a class assignment.
13. Below is a description found in an online index. What type of item is this?

Title:	A comparison of usability techniques for evaluating information retrieval system (IR) interfaces
Authors:	Ahmed, S.M.Z.
Source:	<u>Performance Measurement and Metrics</u> 2008, Vol. 44 (1), 48-58
Document Type:	Article
Subject Terms:	* <u>Usability</u> * <u>Evaluation</u> * <u>Information Retrieval Technique</u> * <u>User Interface</u>

- A. Journal article
  - B. Book
  - C. Newspaper article
  - D. Government report
14. Information literacy is related to the following concepts
- A. User education
  - B. Bibliographic instruction
  - C. Retrieve information with acute technique
  - D. All of the above
15. What is opinion about information literate person?
- A. A information literate person is able to identify, retrieve and find information in the most advanced and appropriate way.
  - B. He knows all the Information Retrieval Technique (IRT)
  - C. He always deals with information and evolves.
  - D. All of the above.
16. Did you take part any IL training programme arranges by your department?
- A. Yes
  - B. No
17. Do you have any concept about Information literacy?
- A. Do not know the actual meaning of information literacy
  - B. Have heard, read but do not understand
  - C. Have vague concept
  - D. D .Have clear concept
18. Do you think, your department has all the facilities to run IL programmes?
- A. Have all facilities
  - B. Some of the facilities are available
  - C. Need more facilities
  - D. Have severe shortage of all facilities
  - E. No comments
19. How do you look for information in online?
- A. Using search engine
  - B. Browsing website
  - C. Using subject portal
  - D. Take help who knows
20. What is your recommendation for improving information literacy situation in your department?
- A. The Department should immediately start information literacy programme.
  - B. Need to start user education, training programme
  - C. Need more trained and skilled library personnel in seminar library
  - D. D.Need information literacy guidelines for the students
  - E. Should include IL curriculum in the syllabus.
  - F. All of the above
  - G. If any other that you are thinking which are not mentioned here, please mention here
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

Thank you so much for your co-operation.

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# Research output in the field of natural sciences: A bibliometric case study of Jamia Millia Islamia University, New Delhi

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## Abstract

This study is a bibliometric analysis of the research output of the Jamia Millia Islamia University, New Delhi, in the field of natural sciences. A total of 1313 records in the form of journal articles (984), conference papers (273) and books (56) were analysed. Bradford's Law and Lotka's Law were tested and found applicable to the data.

## Keywords

bibliometrics, research output, Bradford's Law, Lotka's Law, collaborative authorship, universities, India, Jamia Millia Islamia University

## Introduction

According to Hall (1989), the growth of literature in a field has been shown to be an effective science indicator. In the past this indicator could not be used to its full capacity because of the great amount of labour needed to compile the required information from often scattered hard copy sources. But today's computerized databases are helpful in studying the growth of literature. Bibliometric studies are used to identify the pattern of publication, authorship trends, collaborative patterns, journal coverage, etc. Pritchard (1969) coined the term 'bibliometrics' and defined it as "the application of mathematics and statistical methods to books and other media of communication". Bibliometrics helps us to study the growth of literature for a given period of time. Scientific productivity can also be studied with its help.

Urdu language, Jamia means 'University', and Millia means 'National'.

By a Special Act of Parliament, Jamia Millia Islamia was made a central university of India in December 1988. To the faculties of Education, Humanities and Languages, Natural Sciences, Social Sciences, Engineering and Technology, and Law, two more, the Faculty of Dentistry and the Faculty of Fine Arts, were added in 2007. Many new courses and programmes have since been added at undergraduate and postgraduate levels.

Besides its faculties, the Jamia has a number of centres of learning and research, like the Mass Communication Research Centre (MCRC), the Academy of Third World Studies (ATWS), etc. The Jamia is also marching ahead in the field of Information Technology (IT). It offers various undergraduate and

## Jamia Millia Islamia

Jamia Millia Islamia was originally established at Aligarh in the United Provinces, India in 1920. In the

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postgraduate IT courses. Apart from this, the Jamia has a campus-wide computer network, which connects a large number of its departments and offices.

The university has modern education and training programmes in engineering, basic and applied sciences, social sciences, law and management. It has 32 academic departments in the following broad subject areas:

**Natural Sciences:** Bio Science, Chemistry, Computer Science, Geography, Mathematics and Physics.

**Social Sciences:** Business Management, Economics, Political Science, Social Work, Sociology, etc.

**Humanities and Languages:** Arabic, English, Persian, Law, etc.

**Engineering and Technology:** Architecture and Planning, Chemical Engineering, Civil Engineering, Electrical Engineering, Electronics and Computer Engineering, Mechanical Engineering etc.

The university is always striving for innovations in education, leading to the restructuring of courses, new methods of teaching and learning, and integrated development of personality. The university endeavours to provide the students and teachers with the necessary atmosphere and facilities for the promotion of studies in various disciplines up to PhD level.

The university encourages active involvement of faculty and students in collaborative programmes at national and institutional levels. It encourages faculty members to undertake research projects in frontier areas of engineering, science, technology and management. Major funding has been received by the institute from government funding agencies, such as the Department of Science and Technology, the Department of Atomic Energy, the Defence Research and Development Organization, the Indian Space Research Organization and the Council of Scientific and Industrial Research, and also from universities in various countries. The university is getting funds for establishing new research infrastructure and to enhance the existing areas. Teaching faculties get funds for minor and major research projects from different national and international sponsors. During the last 5 years the teaching faculties of the university attended about 1000 national and 500 international conferences or seminars.

Though all the faculties of the university are actively involved in research, the Faculty of Natural Science gives more emphasis to these activities. The Faculty has been in existence since 1971. It has six departments: Biosciences, Chemistry, Computer Science, Geography, Mathematics, and Physics. The bibliometric analysis presented here helps us to know

important facts about research in the natural sciences by the teaching staff of Jamia Millia Islamia.

### Objectives of the study

- To identify the most productive periodicals with respect to the publications of researchers in the Faculty of Natural Sciences.
- To study the main thrust areas of research work in the Faculty of Natural Sciences.
- To study the publication strategy of the Faculty of Natural Sciences.
- To study the collaborative publications activity of the Faculty of Natural Sciences with other national and international organizations.
- To identify authorship patterns among researchers in the Faculty of Natural Sciences.

### Hypotheses

- **Hypothesis 1:** The scholarly journal article is no longer the single most valid way of judging the research performance of researchers in the Faculty of Natural Sciences.
- **Hypothesis 2:** The research output of researchers in the Faculty of Natural Sciences has increased since 1988 after the Jamia was made a central university.
- **Hypothesis 3:** Collaborative patterns of authorship and publication are more prominent among researchers in the departments of Physics, Chemistry and Biosciences and less so in the departments of Mathematics, Geography and Computer Science.

### Methodology

The biodata of faculty members of the departments covered by this study were obtained and bibliographic information on their papers was recorded. Almost all faculty members provided their biodata, but a few were reluctant to be part of the study. To get details of the publications of such members and also for retired faculty members, different databases were searched with their names and personal contacts were made. Annual reports of the university for previous years were also consulted to get details of their publications.

### Analysis

The following bibliometric analyses were performed on the data:

- The growth of literature was determined using the year-wise listing of the bibliographic records.
- Bradford's Law was tested on the data.

**Table 1.** Jamia Millia Islamia. Faculty of Natural Sciences. Annual publications output of faculty members, 1971–2007.

Year	Journal articles	Conference papers	Books	Total
1971	1	0	0	1
1972	1	1	0	2
1973	2	0	0	2
1974	4	0	0	4
1975	2	2	0	4
1976	4	1	0	5
1977	4	0	0	4
1978	5	2	1	8
1979	5	3	1	9
1980	5	2	0	7
1981	10	1	0	11
1982	9	2	1	12
1983	13	1	1	15
1984	11	5	0	16
1985	11	2	2	15
1986	10	5	0	15
1987	11	5	1	17
1988	12	8	2	22
1989	15	4	1	20
1990	19	8	0	27
1991	19	7	3	29
1992	23	3	0	26
1993	16	11	5	32
1994	28	8	21	57
1995	29	5	1	35
1996	28	12	4	44
1997	47	18	0	65
1998	38	13	1	52
1999	39	12	0	51
2000	53	9	0	62
2001	51	20	1	72
2002	57	16	2	75
2003	55	18	0	73
2004	81	23	5	109
2005	102	31	1	134
2006	119	8	2	129
2007	45	7	0	52
Total	984	273	56	1313
%	75	20	5	100

Note: excluding contributions published before 1971.

- Lotka's Law was applied to the data.
- Collaborative patterns of publication and authorship were calculated.

## Results and discussions

### Types of publication sources used

Table 1 shows that journal articles accounted for 75 percent of all faculty members' publications, conference papers for 20 percent and books for 5 percent. Hypothesis 1 "The scholarly journal article is no

longer the single most valid way of judging the research performance of the Jamia faculty" is thus disproved because journal articles account for much the highest proportion of publications. Faculty members also published in conferences and seminar papers, books and chapters in books, but the proportions are much smaller.

### Growth in research output

The annual production of literature by members of the Faculty of Natural Sciences from 1971 to 2007 is shown in Table 1. The number of published contributions rose from 1 in 1971 to its highest level of 134 in 2005. This latter figure may be due to the effects of a one-time special grant of INR 142,800,000 given by the Ministry of Human Resource Development in 2005 for the improvement of the research activities of Jamia. It is evident from Table 1 that the number of publications increased from 22 in 1988 – the year when Jamia was made a central university – to 134 in 2005. Thus we can say that Hypothesis 2, 'The research output of Jamia faculty has increased since 1988 after it was made a central university' is proved.

Table 2 shows the annual publications output of faculty members from 1971–2007 inclusive, by department. In this analysis, literature published by faculty members before joining Jamia has been taken into consideration. Faculty members of the Department of Chemistry recorded the highest number of publications (424), which accounted for 32.3 percent of the total. Faculty members from the Department of Physics published 347 items (26.4 percent of the total), and faculty members from the Department of Biosciences published 274 items (20.9 percent). These three departments together accounted for 79.6 percent of all publications, while the departments of Computer Science, Mathematics and Geography together accounted for only 20.4 percent.

Table 3 shows the publications output of each department in relation to the numbers of faculty members for the years 2004–2007. It can be seen that the Department of Chemistry had the highest average publications output per faculty member during this period, while the Department of Geography had the lowest.

### Bradford's Law of Scattering

This law was propounded by S.C. Bradford, Librarian, Science Museum Library, London in 1934. Bradford's Law serves as a general guideline to librarians in determining the number of core journals in any given field. It states that journals in a single field can

**Table 2.** Jamia Millia Islamia. Faculty of Natural Sciences. Annual publications output of faculty members, 1971–2007, by department.

Year	Physics	Chemistry	Biosciences	Computer science	Mathematics	Geography	Total
1971	1	0	0	0	0	0	1
1972	2	0	0	0	0	0	2
1973	2	0	0	0	0	0	2
1974	3	0	1	0	0	0	4
1975	3	0	0	1	0	0	4
1976	0	0	1	4	0	0	5
1977	1	0	2	0	1	0	4
1978	1	0	3	2	1	1	8
1979	1	1	3	3	0	1	9
1980	0	1	0	3	3	0	7
1981	3	0	4	2	2	1	12
1982	3	3	2	2	1	0	11
1983	6	0	3	3	3	0	15
1984	5	2	3	5	1	0	16
1985	5	4	2	2	2	0	15
1986	2	2	4	5	2	0	15
1987	7	3	2	2	2	1	17
1988	9	1	1	9	1	1	22
1989	9	1	7	0	2	1	20
1990	11	1	7	1	7	0	27
1991	19	1	4	1	3	1	29
1992	11	6	7	0	2	0	26
1993	11	5	2	3	7	4	32
1994	13	6	9	1	8	20	57
1995	7	5	13	1	8	1	35
1996	10	17	8	2	1	6	44
1997	22	28	10	0	5	0	65
1998	14	23	6	1	6	2	52
1999	16	19	10	0	3	3	51
2000	15	21	18	1	5	2	62
2001	13	30	10	2	13	4	72
2002	20	32	13	0	6	4	75
2003	23	31	8	2	5	4	73
2004	16	46	30	5	4	8	109
2005	28	50	37	14	5	0	134
2006	23	60	33	4	7	2	129
2007	12	25	11	3	0	1	52
Total	347	424	274	84	116	68	1313
%	26.4	32.3	20.9	6.4	8.9	5.2	100

be divided into three groups, each containing the same number of articles:

1. a core of journals on the subject, relatively few in number, that produces approximately one-third of all the articles
2. a second group, containing the same number of articles as the first, but a greater number of journals
3. a third group, containing the same number of articles as the second, but a still greater number of journals (Bradford, 1950).

The 984 journal articles covered in the present study were published in a total of 347 journals (an average of 2.84 articles per journal). Table 4 shows the numbers of journals publishing stated numbers of articles by faculty members from 1971–2007, ranked in descending order of number of articles.

Analysis of the data presented in Table 4 shows that a small number of core journals (22 journals) published a total of 335 papers, the next group of 71 journals published 328 papers and a third group of 254 journals published 321 papers. The analysis shows that there are three groups or zones of almost



**Table 3.** Jamia Millia Islamia. Faculty of Natural Sciences. Publications output per faculty member, 2004–2007, by department.

Department	Number of publications	Number of faculty members	Publications per faculty member
Physics	79	15	5.27
Chemistry	181	18	10.1
Biosciences	111	18	6.17
Computer Sciences	26	12	2.17
Mathematics	16	14	1.14
Geography	11	15	0.73

**Table 4.** Jamia Millia Islamia. Faculty of Natural Sciences. Journal articles published by faculty members, 1971–2007, by number of journals and number of articles per journal.

Number of journals	Number of articles	Cumulative articles
1	30	30
1	26	56
1	24	80
2	23	126
1	18	144
1	17	161
2	16	193
2	14	221
1	13	234
1	12	246
2	11	268
4	10	308
3	9	335
7	8	391
8	7	447
7	6	489
9	5	534
15	4	594
25	3	669
61	2	791
193	1	984

equal numbers of articles but the number of journals increased in each zone. This is according to Bradford’s Law, so we can say that this law is proved in the present case (Table 5).

*Country of publication of journals*

Table 6 shows that the 347 journals in which faculty members published their articles were published in

**Table 5.** Application of Bradford’s Law to Table 4.

Zone	Journals	Articles	Articles per journal
1	22	335	15.23
2	71	328	4.62
3.	254	321	1.26
	347	984	2.84

26 countries, with the four most productive countries being the USA (85 titles and 243 articles), the United Kingdom (63 journals and 135 articles), The Netherlands (54 journals, 176 articles) and India (44 journals, 204 articles).

The table also shows that the average number of articles per Indian journal (4.6) was much higher than for the USA, UK or any other country except Bulgaria, which had an average of 6.0 articles, all of which were published in the same journal.

*Lotka’s Law*

‘Scientific productivity’ is frequently measured in terms of published output, mostly because the data on the number of publications by authors can be easily collected and are quite reliable.

Lotka proposed his ‘Inverse square law of scientific productivity’ for measuring the scientific productivity of authors in a given discipline. It is one of the earliest studies in the direction of measuring scientific productivity using the number of publications of an author as a measure. This law can be summarized as, “the number of persons making two contributions is about one-fourth of those making one; the number making three contributions is about one-ninth etc., the number making ‘n’ contributions is about one-ninth  $1/n^2$  of those making one; and the proportion of all contributors who make a single contribution is about 60 percent” (Lotka, 1926).

Lotka’s law can also be written as

$$a_n = a_1/n^2$$

where  $a_n$  is the number of authors contributing n papers each;  $a_1$  is the number of authors contributing one paper each, and ‘n’ is the number of publications.

Table 7 shows the numbers of faculty members who published different numbers of journal articles from 1971–2007, and provides a basis for testing the application of Lotka’s Law.

When Lotka’s equation is applied to the data in Table 7, it is found (Table 8) that

$$X = Y/n^2 \text{ (Here } Y = 626)$$

**Table 6.** Jamia Millia Islamia. Faculty of Natural Sciences. Journal articles published by faculty members by country of publication and number of journals, 1971–2007.

S.No.	Country of publication	Number of journals	Number of articles	Average number of articles per journal
1	USA	85	243	2.8
2	UK	62	134	2.1
3	The Netherlands	54	176	3.2
4	India	44	204	4.6
5	Germany	20	53	2.6
6	Japan	11	17	1.5
7	Switzerland	9	13	1.4
8	Canada	8	16	2.0
9	China	6	9	1.5
10	Hungary	5	8	1.6
11	Australia	4	5	1.25
12	Denmark	3	3	1.0
13	France	3	12	4.0
14	Singapore	3	4	1.3
15	Croatia	2	5	2.5
16	Ireland	2	3	1.5
17	Italy	2	2	1.0
18	Poland	2	3	1.5
19	Taiwan	2	3	1.5
20	Bulgaria	1	6	6.0
21	Iran	1	2	2.0
22	Kuwait	1	1	1.0
23	Malaysia	1	3	3.0
24	Romania	1	1	1.0
25	South Africa	1	1	1.0
	Total	347	984	2.84

The values derived from the application of Lotka's equation are almost equal to the observed values (i.e. 626, 164, 88, 44, 31). Therefore Lotka's law is proved in this study.

#### *Collaborative pattern of Jamia publications*

A major factor in research productivity is research collaboration and collaborative authorship. Collaboration is also influenced by different factors, e.g. the nature of research, availability of finance, utilization of manpower and rate of expansion of the area of study. Even the internal, political, social, economic conditions of a particular country are highly responsible for changing patterns of collaboration. Collaboration patterns in the Faculty of Natural Science of the Jamia have been classified according to three criteria:

1. international collaboration, showing the numbers of papers published in collaboration with authors from other countries

**Table 7.** Jamia Millia Islamia. Faculty of Natural Sciences. Number of articles published by number of authors making stated numbers of contributions, 1971–2007.

Number of articles published	Number of authors making the stated number of contributions	Percentage of all authors
1	626	57.75
2	164	15.13
3	88	8.12
4	44	4.06
5	31	2.86
6	25	2.31
7	19	1.75
6	14	1.29
9	7	0.65
10	2	0.18
11	5	0.46
12	5	0.46
13	4	0.37
14	8	0.74
12	5	0.46
16	1	0.09
17	1	0.09
18	3	0.28
16	1	0.09
20	3	0.28
22	3	0.28
23	1	0.09
25	1	0.09
27	2	0.18
28	3	0.27
26	2	0.18
29	1	0.09
31	1	0.09
32	1	0.09
33	1	0.09
39	1	0.09
41	2	0.18
57	2	0.18
59	2	0.18
60	1	0.09
76	1	0.09
81	1	0.09
93	2	0.18
984	1084	100

**Table 8.** Application of Lotka's equation to Table 7.

Results of Lotka's equation	Observed values from Table 7
For $n = 1$ : $X = 626/1^2 = 626$	626
For $n = 2$ : $X = 626/2^2 = 626/4 = 157$	164
For $n = 3$ : $X = 626/3^2 = 626/9 = 70$	88
For $n = 4$ : $X = 626/4^2 = 626/16 = 40$	44
For $n = 5$ : $X = 626/5^2 = 626/25 = 25$	31

**Table 9.** Jamia Millia Islamia. Faculty of Natural Sciences. Papers published by faculty members. International collaboration by collaborating country and number of collaborative papers, 1971–2007.

S.No.	Country	Number of papers	Percentage
1	USA	48	28.07
2	Japan	39	22.81
3	Iran	26	15.20
4	UK	8	4.68
5	Germany	7	4.09
6	Malaysia	5	2.92
7	Australia	4	2.34
8	Switzerland	4	2.34
9	Nepal	3	1.75
10	Russia	3	1.75
11	Spain	3	1.75
12	Taiwan	3	1.75
13	Thailand	3	1.75
14	Italy	2	1.17
15	Poland	2	1.17
16	Saudi Arabia	2	1.17
17	Egypt	1	0.58
18	France	1	0.58
19	Jordan	1	0.58
20	Kuwait	1	0.58
21	Lesotho	1	0.58
22	Romania	1	0.58
23	The Netherlands	1	0.58
24	United Arab Emirates	1	0.58
25	Yemen	1	0.58
	Total	171	100.00

- authorship collaboration, showing the numbers of papers published in collaboration between two or more authors (including international collaborations)
- departmental collaboration, showing the numbers of papers published by researchers from each department through collaboration with other authors at the international, national and local levels.

All three types of analysis include journal articles and conference papers, referred to as ‘papers’ below.

#### International collaboration

Table 9 shows that the USA came first in terms of international collaboration with 55 papers co-authored by Faculty of Natural Sciences researchers members and authors from the United States. Next came Japan (39 collaborative papers) and Iran (26 papers). Authors from the UK collaborated in 8 papers and German authors in 7 papers.

**Table 10.** Jamia Millia Islamia. Faculty of Natural Sciences. Papers published by faculty members. Authorship collaboration by number of authors and number of collaborative papers, 1971–2007.

S.No.	Number of authors	Number of papers	Percentage
1	2	285	29.26
2	3	350	35.93
3	4	182	18.69
4	5	81	8.32
5	6	26	2.67
6	7	20	2.05
7	8	12	1.23
8	9	11	1.13
9	10	2	0.21
10	11	1	0.10
11	12	1	0.10
12	17	1	0.10
13	18	1	0.10
14	19	1	0.10
	Total	974	100.00

Note: Excluding (a) contributions published before 1971 (b) 283 papers of sole authorship (c) 56 books.

#### Authorship collaboration

As shown in Table 10, collaborative authorship (including collaboration with international authors) is prevalent in the publications of Faculty of Natural Sciences researchers. The most common pattern of collaboration, represented in 350 papers (36%) was between three authors, followed by 285 papers (29%) with two authors and 182 (19%) by four authors. The maximum number of authors for any paper was 19, found in only one paper.

#### Departmental collaboration

Table 11 shows the collaborative pattern of publication according to department. Although Researchers in the Department of Chemistry were the most collaborative overall, but local collaboration was high while the level of international collaboration was very low. The most collaborative department internationally was the Department of Biosciences, followed by the Department of Physics. Hypothesis 3 “Collaborative pattern is more prominent in Physics, Chemistry and Biosciences and less in Mathematics, Geography and Computer Science” is proved. Number of papers with collaboration in Physics, Chemistry and Biosciences is 855 (88%) while in Mathematics, Geography and Computer Science it is 119 (12%) only.

#### Conclusion

The assessment of research output is slowly developing as an important issue for the scientific community.

**Table II.** Jamia Millia Islamia. Faculty of Natural Sciences. Collaborated papers by level and department, 1991–2007.

S.No.	Department	International collaboration	National collaboration	Local collaboration	Total collaborations	Total contributions*	%
1	Physics	69	106	117	292	347	84.15
2	Chemistry	8	98	215	321	424	75.71
3	Biosciences	80	78	84	242	72	88.97
4	Computer Science	2	13	23	38	82	46.34
5	Mathematics	12	21	44	77	104	74.04
6	Geography	0	2	2	4	28	14.29
	Total	171	318	485	974	1257	77.49

Note: \*Only journal articles and conference papers are taken into consideration.

Bibliometric study is a commonly used method to do so. These techniques are used to evaluate the work of teaching faculty/researchers, to determine rank, promotion, salary and research funding. This study, though small in nature, will help to assess research output of teaching staff of the Faculty of Natural Sciences in Jamia Millia Islamia. Due to limited time, output has been measured only quantitatively. The study shows that authors from the Faculty of Natural Sciences have contributed mainly in the form of journal articles and that the pace of research is slowly developing in the university. According to the analysis, the Department of Chemistry is the most productive department followed by the departments of Biosciences and Physics. The analysis of the number of publications per faculty member in each department for 2004–2007 shows that Department of Chemistry had the highest (10.1) number of publications per faculty members followed by Department of Biosciences with 6.17. Most of the authors published in international journals, with American journals topping the list. But the average number of papers per Indian journals is higher than any other country except Bulgaria, which was an isolated case. The most collaborative department overall was the Department of Chemistry, but the Department of Biosciences took the lead in collaboration at the national and international levels. Overall the researchers in the Faculty of Sciences of Jamia Millia Islamia showed a high

level of collaboration in their publications output, with some 77 percent of their publications being produced collaboratively.

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# Non-users' evaluation of digital libraries: A survey at the Università degli studi di Milano

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## Abstract

Presents the results of a questionnaire survey of non-users of the digital library services at the Università degli Studi di Milano. The target audience for the survey comprised students, teaching staff and technical-administrative staff of the university. The research focused on 'factual non-users', who used the service once and then decided to not use it any more. The results showed that factual non-users, despite of limited use of the digital library's facilities, believed that they were familiar with the service and considered it to be satisfactory. They did not use it any more for various reasons, mainly because they did not need it any longer, or were currently using another service. Some weaknesses in the service were highlighted, in particular its lack of user-friendliness and the limited availability of material in some disciplines. The research also showed that the service was accessed for different reasons, including thesis preparation, research and keeping abreast, but also for personal interests. The results confirm how little is known about the non-users and raise many new and controversial questions which should compel the scientific community to investigate non-users more deeply. The paper was the winner of the IFLA LIS Student Paper Award, 2010.

## Keywords

digital libraries, non-users, Italy

## Introduction

Researches, development and practices related to digital libraries took off in the middle of the 1990s. Thousands of these libraries, in several forms, were built in less than a decade, and LIBWEB (2010) currently lists more than 8,000 in over 146 countries (Saracevic, 2004). Despite this exponential growth, many fundamental questions still remain unresolved. What is sure is that digital libraries are libraries and therefore it is important to conduct evaluation studies to improve their performance and get more funds, but also to avoid the temptation to defend the status quo and embrace the technology uncritically. Unfortunately, according to Saracevic (2004) "everything about digital libraries is explosive, except one thing: evaluation" (p. 1), mainly because it is a demanding activity and it deals with a lot of challenges from technologies, costs and users (Monopoli, et al., 2002).

According to Bearman (2007), one particular challenge regarding the use of digital libraries is that in conducting researches, we study those who actually

utilize a service, but miss those who might use it but do not. In this research, in disagreement with Morgan and Wolf (2009) who question if we even really want to collect information from non-users, maintaining that "asking non-users their preferences about digital libraries is difficult if they don't actually use these collections" (p. 3), it is believed that dealing with non users is crucial to an exhaustive evaluation of a digital library service, otherwise data from a huge branch of the digital library community would be missed and, in some cases, the results would be garbled.

## Background

There is a large amount of literature regarding the evaluation of digital services or libraries coming from

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different communities and disciplines, but they are not straight applicable to digital libraries. In the 1990s, some researchers proposed to adopt the same evaluation criteria used by traditional libraries, since both belong to the same institutions and share the same purpose (Baker and Lancaster, 1991), but this theory was soon discarded, recognizing the essential differences between them and having highlighted the inevitable issues related to the digital environment. Literature about users' evaluation experiences is rare, and according to Saracevic (2004), there are more works discussing evaluation than ones reporting evaluation. Digital libraries are complex entities and many evaluation methods can be suitable, indeed the literature advises quite a wide range of methods and data collection techniques. The questionnaire is the most used, as, for instance, in the evaluation of the use of the electronic journals service at the University of Patras in 2002 (Monopoli, et al., 2002). Another widely adopted method is the interview, a good example of which is the BibUsages evaluation carried out in France in 2002 in a partnership between France Telecom RandD and the Bibliothèque Nationale de France (Assadi, et al., 2003). Other very interesting but less adopted methods are the focus group (Morgan and Wolf, 2009), diaries (Xie, 2007) and experimentation (Bollen and Luce, 2002).

Of course a "best method" does not exist; each method has, by definition, its strengths and weaknesses so the use of triangulation has been emphasized by a number of commentators (e.g. Kyrrillidou and Giersch, 2004) and adopted in many studies.

Unfortunately a specific bibliography on non-users' evaluation of digital libraries seems to not exist so far; the topic is mentioned in a few researches as a challenge, but never seriously tackled.

### **Aim and methodology**

The aim of this research is identify and get information from 'factual non-users' (see below) regarding digital libraries, in order to make them effective for all. Non-users can help to highlight service limits and issues, give advice and provide information about what it is generally expected from a digital library.

The chosen methodology and method are the survey and the questionnaire because they allow investigating the main features of a specific population and getting information about their opinions and their behaviour. As Pickard (2007) stated "there are a number of reasons for using questionnaires in your research: you can reach a large and geographically dispersed community at relatively low cost, you can harvest data from a larger sample than would be possible

using any other technique" (p. 183). Nevertheless "The apparent biggest attraction of a questionnaire [anonymity] is also one of the greatest limitations of the instrument: the lack of opportunity to talk directly to respondents" (Foddy as cited in Pickard, 2007). The interview method will be afterwards associated to overcome this limitation and get even more significant data.

To achieve this aim, a closed community which has access to a specific digital library was identified, the non-users in the community were individuated and information from and about them was collected.

Before going on, a more careful definition of the term 'non-user' is mandatory; 'non-users' are commonly defined as "people who do not make use of any existing services provided by the library and information unit within an organization" (Tedd and Large, 2004, p. 192), but this definition is too limited, because non-use can be due to a lot of different reasons and variables. For this reason the term 'non-users' has been applied in this study to two main categories: 'factual non-users' – people who use a service just once and then decide to not use it any more; and 'potential users' – people who have never used the service, whether they know about it or not. In this research, the term 'non-users' refers to the first category, i.e the 'factual non-users'.

### **Sample and data collection**

The Università degli studi di Milano, one of the biggest universities in Italy, organized in nine faculties with more than 60,000 students (Ministero dell'Istruzione, dell'Università e della Ricerca, 2009), was the chosen locale for the research. The university's Digital Library was founded in 1996 by the Divisione Coordinamento Biblioteche to centralize the management of electronic resources and reduce its costs; over the years the amount of available resources and their use have steadily increased and nowadays more than 9,000 electronic journals, 40 electronic books of all kinds (books, encyclopaedias, dictionaries, reference works, etc.) and approximately 235 bibliographic databases and full text are available (Sistema Bibliotecario d'Ateneo, 2009). Access to the resources is partially controlled: using on-campus institutional computers does not require an authentication, which is required for off campus connections. The authentication is done through an email provided by the University and a password chosen by the user. This scenario has been chosen because it satisfies the research requirement: it is a closed but representative community (all the members of the University have access), the non-users can be individually identified through their log-in (consequently the research is

restricted to off-campus accesses) and contacting the potential participants is easy and secure using the same email account used by them to access the service.

The Department SBA-Biblioteca Digitale, represented by Federica Zanardini and Lorenzo Bosi, was contacted and kindly accepted to cooperate. The emails of people who accessed the service through off-campus connections on one or two days from January to December 2009 were collected by the proxy server and web cache *Squid* (Squid, 2010), which was utilized to query the monitoring login database. Emails inviting the persons so identified to answer a brief and anonymous questionnaire were sent to the selected addresses. These two steps were conducted by the SBA department to overcome the restrictions due to the University's privacy policy (Università degli Studi di Milano, 2005), which does not allow external cooperators to access these data. As a result, 359 mail addresses were collected: 234 from people who made a single access and 125 from those who made two accesses.

The emails included the invitation to take part in the survey, general data about the research, the link where find it, the amount of time needed to fill in the questionnaire, the anonymity policy and an indication of the selection criteria used to identify the respondent's address. The brevity of the questionnaire and its anonymity were clearly declared to encourage participation, and the selection parameters were described to get their trust.

The questionnaire was available online from 27 April (when the emails were sent) to 7 June at the link <http://www.surveymonkey.com/s/K2V22K2> (see Appendix). It was designed adopting the basic version of the web-based survey software SurveyMonkey because it is one of the most complete and specifically designed software packages freely available. Moreover, it is quite simple to use, but also powerful and flexible; it covers all aspects of the survey process from design to analysis, with strong attention to the security and privacy matters (SurveyMonkey, 2010). The questionnaire was designed to be user friendly and brief (10 closed questions with the possibility to add comments) and was divided into two sections: personal data collection (4 questions) and evaluation of the Digital Library (6 questions).

The questions in the first section concerned the respondent's academic position, registration year (for students), age and faculty membership. The second section was structured to be filled in according to academic position (the questions were based on a rating scale model) and the questions were related to: how they had known about the service, the reasons why they had accessed it, self evaluation about their

knowledge of the facilities and functions provided by the Digital Library, their satisfaction level, the reasons why the service is not used any longer and finally their agreement to being interviewed.

To be sure the questionnaire was easily understandable and without ambiguity, a pilot test involving 3 students, 1 professor and 1 employee, was carried out. The results were interesting and helped to improve the design and redefine the questions.

## Data analysis and discussion

Before analysing each question, it is important to report that out of 359 mails sent, just 62 people took part in the questionnaire and just 48 completed it entirely. Many reasons could explain why only 17 percent accepted to answer, but the most probable are non-use of the email account and lack of interest in the research. The first inference is interesting to investigate because it should be used as the communication channel between the University office and the students. One of the hopes in conducting this research was to promote the Digital Library, remind people of its existence and encouraging them to reflect on it by asking some questions, but unfortunately, according to these data, it seems that factual non-users are effectively not interested.

### Personal data

As previously described the questionnaire was organized in two sections, the first one concerning personal data and the second dealing with the service evaluation. Each of them will be shortly described. The personal data section was composed of 4 questions; the most significant one was about the academic position of the participants: students accounted for 22.6 percent of respondents, technical and administrative staff for 12.9 percent and teaching staff for 64.5 percent. This result was unexpected because, according to the official annual report of the University, (Ministero dell'Istruzione, dell'Università e della Ricerca, 2009) students are in the majority in the university. Two possible explanations of these results are the higher sensibility of the teaching staff to research and their more frequent use of the email account due to their professional business. Therefore the results do not depict an exact picture of the position of non-users in the University, which would have been impossible through a simple questionnaire.

Regarding the students, it is interesting to note, from the responses to the second questions about the registration year, that 35.7 percent were bachelor students while 50 percent were master students (14.3 percent skipped the question). It is well known,

and this research later confirmed, that students approach the digital library mostly to search for material for their theses; it is therefore quite natural that half of them are master students.

The third question investigated the age of the respondents: 29.1 percent were between 20 and 29 years old, 29 percent between 30 and 39, 16.1 percent between 40 and 49 and 25.8 percent over 50.

The last question investigated faculty membership; 58 percent of the responses were from students in the Faculty of Mathematical, Physical and Natural Sciences and the Faculty of Medicine and Surgery. This is an interesting and unexplainable result because the Università degli Studi di Milano is organized in nine faculties and these are not the most populated (Ministero dell'Istruzione, dell'Università e della Ricerca, 2009). Complete data of this section are reported in the appendix in the table 'Personal data'. As previously stressed, the brevity and simplicity of the questionnaire were very much taken into consideration, so discussion of the first section has kept short so as to allow a deeper investigation of the second one.

### *Evaluation of the Digital Library*

The second section, concerning the evaluation of the Digital Library, was composed of six questions and was to be completed according to the academic position of the respondent. Unfortunately the basic version of SurveyMonkey has some drawbacks: it does not check if the answer given in the second section agrees with the academic position declared in the first section, and it allows participants to choose more than one answer for each question even though they were based on a rating scale. These weaknesses explain the mismatch between the number of the answers, the number of participants and their academic position.

The first question looked into how the respondents came to know about the Digital Library; overall, the faculty web page was indicated as the primary source (36.5 percent), followed by colleagues (23.8 percent); the librarians (17.4 percent) and professors (15.8 percent) also accounted for a good percentage and can be considered as good promoters. A different picture came from analysing the choice made by only the technical and administrative staff, who indicated the librarians as first choice (37.5 percent), the professors 25 percent, and colleagues 12.5 percent. A high proportion (25 percent) indicated the option 'other', but unfortunately the additional comments for all the positions were not significant.

The second question concerned the reason why the Digital Library was accessed. The students mainly

indicated the preparation of a thesis (36.4 percent), followed by a search for exam materials (27.3 percent) and, surprisingly, 18.2 percent who indicated personal interests. Different results came from the teaching staff, who indicated professional research (47.3 percent) as their main reason, followed by the necessity to keep abreast (23.7 percent), and personal interests (14.5 percent). First choice among the technical and administrative staff was the need to keep abreast (33.3 percent), followed by professional research (22.2 percent) and personal interests (22.2 percent). An overall analysis of the response to this question has no sense because the answers are strongly professionally oriented, but some conclusions are possible: 15.3 percent of all respondents use the service for personal interests, despite the fact that the digital library is considered to be academic and the collections are therefore developed according to academic needs. It would be worthwhile to investigate what exactly is meant by 'personal interests' and what they are.

The third question sought the respondents' self evaluation about their knowledge of the facilities and functions provided by the service; the possible answers were not differentiated according to academic position and the choice was limited to no, little, average and deep knowledge. The answers were unexpected and confirmed the modest level of knowledge among the non-users; indeed, as previously described, there are several and different resources and possibilities provided by the digital library, nevertheless 38.1 percent declared a deep knowledge, 50 percent average, 9.5 percent little knowledge and 2.4 percent no knowledge. These results indicate that more than 88 percent of the non-users think they know the Digital Library well. This could be a good starting point to reflect on what the digital library means to non-users and which tools could be adopted to promote the advanced possibilities it provides for them.

In the fourth question, the factual non-users' level of satisfaction with the Digital Library service was judged; overall, it seems to be satisfactory: 21.1 percent declared themselves to be highly satisfied, 51.9 percent averagely satisfied, 21 percent partially satisfied and only 5.7 percent unsatisfied. Analysing the data according to academic positions, the most critical were the students, because 18.7 percent were unsatisfied and 9.1 percent only partially satisfied, while the most enthusiastic were the teaching staff, with 20 percent highly satisfied and 53.3 percent reasonably satisfied. The technical and administrative staff results showed that none of them was unsatisfied, 28.6 percent was partially satisfied, 42.8 percent averagely satisfied and 28.6 percent highly satisfied. These results sound



extremely positive and comforting, but since the questionnaire was for non-users, the results are paradoxical.

The following question investigated the reasons why the service was not used any longer so it is appropriate and crucial to interpret these results. On an overall analysis, the main reason was simply the lack of necessity (32.8 percent), while 25.8 percent referred to problems related to the use of the system: 5.2 percent had access denied, 10.3 percent said their interests were not covered and for another 10.3 percent the cause was the non-user-friendliness of the system. Another result deserves deeper consideration: 15.5 percent of the participants stated that they were using other systems; finding out what they meant and what those other systems are would be a good development. Finally, the option 'other' was chosen by 25.8 percent, commenting on time constraints or offering deeper explanation of the previous options. Seven people specified they usually use the service; this means that they usually accessed the Digital Library through the computers available on campus where no login is needed, but they had been included in the mailing list anyway.

The last question was on the agreement to be interviewed. Seven people agreed and will be contacted soon.

More information regarding the responses to the second section is given in the appendix in the table 'Evaluation of the Digital Library'.

## Conclusions

The aim of this research was identify and get information from factual non-users regarding digital libraries. The results were unexpected, showing that factual non-users, despite their limited use, think they have a good knowledge of the digital library's possibilities and are satisfied with it. They decide not to use it for different reasons, mainly because they simply don't need it, they use another digital library, the system is not user friendly and the coverage of their discipline is limited. The research also found that the digital libraries were accessed for reasons related to academic positions (thesis, research, keep abreast), but also for personal interests. Other interesting data emerged in analysing how they heard about the service; most indicated the faculty web page and colleagues. These data confirm how little is known about the non-users and raise a lot of new and controversial questions which should force the scientific community to reflect on the promotion policy of the services and on a deeper investigation of non-users' expectations, leading to new reflections on making digital libraries effective for all.

## Appendix

Table 1. Personal data.

<b>1. Academic position:</b>	
Student	14 (-4)*
Teaching staff (full professor/adjunct professor/researcher/PhD student)	40 (-3)*
Technical and administrative staff	8
Other	0 (+7)*
Comments: "just graduate", "just graduate", "I graduated six months ago", "I will be a master student soon", "Post Doctoral position", "PhD student", "My research contract has just expired"	
<b>2. If student, specify the registration year:</b>	
First year, bachelor level	1
Second year, bachelor level	2 (-1)*
Third year, bachelor level	1
Over the third year, bachelor level	0
First year, master level	1
Second year, master level	5
Over the second year, master level	2 (-1)*
Other	0 (+2)*
Comments: "I am attending the second year, even if I should attend the third", "Over the fifth years"	
<b>3. Age:</b>	
20-24	6
25-29	12
30-34	10
35-39	8
40-44	8
45-49	2
Over 50	16
<b>4. Faculty membership:</b>	
Faculty of Agriculture	4
Faculty of Pharmacy	1
Faculty of Law	2
Humanity's faculty	9
Faculty of Medicine and Surgery	13
Faculty of Veterinary Medicine	1
Faculty of Mathematical, Physical and Natural Sciences	23
Faculty of Sports Science	0
Faculty of Political Science	6
Multiple faculty	3

\* The additional comments were all due to the previous categories, so they have not been considered in the analysis.

**Table 2.** Evaluation of the Digital Library.

	Student	Teaching staff	Technical and administrative staff
<b>1. How have you heard about the service?</b>			
Colleagues	4	8	1
Professors	3	3	2
Librarians	3	5	3
Faculty web page	7	11	0
Other	1	3	2
Comments: "browsing the University web page", "I can't remember", "promoting mail", "University web page", "Working"			
<b>2. Why have you used the service?</b>			
To conduct a professional research	1	26	2
To search material for my thesis	8	3	1
To search material for an exam	6	2	0
To keep abreast	2	15	3
Personal interests	4	8	2
Other	1	1	1
Comments: "I use the library to conduct my profession, I am a librarian", "I have used the digital library to write the literature review of my research"			
<b>3. Do you know the facilities and functions provided by the digital library?</b>			
Deep knowledge	16		
Average knowledge	21		
Little knowledge	4		
No knowledge	1		
<b>4. Satisfaction level:</b>			
Dissatisfied	2	1	0
Not completely satisfied	1	7	2
Satisfied	7	16	3
Very satisfied	1	6	2
<b>5. Why haven't you used the service any longer?</b>			
No need	8	10	0
Denied access	2	1	0
Use of another service	2	6	1
The software is not user-friendly	1	2	3
No coverage of the interests	1	4	0
Other	1	10	3
Comments: "I prefer to use other sources", "It is too complicated", "I use it quite frequently", "I use it almost every day", "I use it quite frequently", "I use it, but sometimes it doesn't cover the previous years editions", "I use it", "no time", "I preferred the previous version of the software", "I use it", "I can't access some important resources", "No time", "I use it quite frequently"			
<b>6. Would you take part at an interview on the issues addressed by the questionnaire? If yes please write your email address.</b>			
Yes	9		
No	33		

## Note

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# Building capacity through the IFLA Building Strong Library Associations programme

**Fiona Bradley**

International Federation of Library Associations and Institutions

## Abstract

An introduction to the Building Strong Library Associations programme of the International Federation of Library Associations and Institutions. The programme is rolled out through country projects which include workshops, specialist mentoring, online blended activities and specially developed cross-programme activities. Three country projects per year will be implemented from 2010 until 2012, one each in Africa, Asia and Oceania, and Latin America and the Caribbean. The programme will be evaluated on three levels with a view towards ensuring sustainability of the programme and each country project.

## Keywords

library associations, capacity building, International Federation of Library Associations, Building Strong Library Associations programme

## Introduction

Library associations are key institutions in the library and information sector around the world. Library associations are advocates for equitable access to information, improving services for library users, and support development of the profession.

Building Strong Library Associations (BSLA) is a comprehensive programme offering a strategic and coordinated approach to capacity building and sustainability of library associations. The programme is designed to not only benefit library associations, but also libraries and their communities. The programme is customized to meet the needs of different associations, and different language, cultural, political, social and other conditions.

## IFLA's approach to development

BSLA is delivered by the Action for Development through Libraries (ALP) programme. ALP moved to IFLA Headquarters in 2010 and is now the primary vehicle for delivering training based on policy and guidelines developed by IFLA's core activities or sections. ALP collaborates closely with IFLA's other Core Activities and the regional sections and offices to carry out its activities.

IFLA takes a capacity building approach to its development activities and works closely with library associations and other institutions to help them strengthen their ability to advocate on behalf of libraries and their users. Capacity building is more than training and includes support for organizations to develop their abilities and skills to achieve their goals (International Labour Organization, 2005). In the IFLA context, this includes support to develop partnerships, mentoring, guidance on good practices, and advocacy planning.

## Country projects

The programme will be rolled out using a model known as country project. IFLA visits each participating country at the start of the project to identify the association's needs and goals.

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During the project, participating countries will take part in a range of capacity building activities involving the national association, emerging leaders and key stakeholders in the country. These activities will include workshops, specialist mentoring, online blended activities and specially developed cross-programme activities. Workshops will be led by a core group of senior, experienced library association experts, who will facilitate workshops based on IFLA's Building Strong Library Association training package and IFLA's other policy-based training materials. Each country is paired with a core trainer for the duration of the project.

IFLA will select three country projects per year from 2010 until 2012, one from each of IFLA's regional sections in Africa, Asia and Oceania, and Latin America and the Caribbean.

The programme, and the announcement of the first countries to take part, was launched at the IFLA World Library and Information Congress in Gothenburg, Sweden in August 2010. The first country projects will be rolled out in Peru, Lebanon and Cameroon. In addition, IFLA received a grant from the Bill & Melinda Gates Foundation's Global Libraries Initiative to deliver the programme in Botswana, Lithuania and Ukraine.

Initial activities in each country are focused on strengthening the association's structures, governance and volunteers, and latter stages of the project broaden the perspective of the association to include and build partnerships with a range of stakeholders and develop an advocacy role.

### **Flexible use of the programme**

Several funding options are available for associations that want to participate in the programme, giving flexibility and broadening access to associations that may not necessarily have the resources to support a full programme:

- apply to IFLA ALP for country project funding comprising in-country, trainer and programme support
- apply for ALP project funding to deliver a single module of the programme
- partner with other associations to seek funding, share resources, and form mentoring partnerships
- use the online platform and other BSLA resources freely available to members on IFLA's website.

### **Components of the programme**

The Building Strong Library Associations programme consists of:

- a modular, customizable training package on library association development
- IFLA's policy-based learning materials (for example, those developed by FAIFE)
- mentoring and advice on forming partnerships
- cross-association activities, to bring participants together
- an online platform to provide remote access to materials.

The BSLA training package, developed by expert content developers and representatives of IFLA's membership, contains a series of topics, learning objectives, case studies, and opportunities for self-assessment. The content is highly customizable.

The online platform will make available all of IFLA's training packages through a login-access site to all IFLA members. The platform will allow members to:

- download training materials and case studies
- participate in online learning activities and discussions
- contribute their stories of how they have used the programme.

Training materials will also be available to members who have limited Internet access via removable media (for example, CD-ROM).

### **Impact assessment**

IFLA places an emphasis on evaluating and reporting on projects to evaluate the difference the Building Strong Library Associations programme makes in library communities. Impact assessment is a process that aims to identify the consequences of an action (Markless and Streatfield, 2008). Actions can take many forms, but in IFLA's case this may include training programmes, new services, or the introduction of a new policy. IFLA worked with experts in assessment and impact evaluation to develop an impact assessment framework for BSLA, following the successful use of the method to evaluate FAIFE projects in Peru, Philippines and Russia in 2009 (Bradley, 2009).

The framework measures the operational capacity of associations, the skills of the association's leadership, the strength of the association's partnerships and fundraising efforts, and relationships with other associations.

The whole programme will be evaluated on three levels to demonstrate the value IFLA brings to each country it works in, with a view towards sustainability of the programme and each country project:

1. Programme level, with a view towards sustainability.
2. Country project level, to assist countries to continue building their associations beyond 2012.
3. Comparisons between participating countries, to identify outcomes that can be more broadly shared with other associations.

### Conclusion

Through the Building Strong Library Associations programme, IFLA is building on its success in development, and furthering the implementation of its guidelines and policy-based training around the world. By using impact evaluation, IFLA will be able to measure the difference its work makes and provide research and case studies for the benefit of countries beyond those directly participating in the programme.

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# The IFLA World Report 2010

Theo Bothma



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The *IFLA World Report 2010* was launched at the WLIC in Gothenburg. This is the fifth Report in the Series that has appeared biennially since 2001. The project was assigned to a research team from the Department of Information Science, University of Pretoria, South Africa, with Professor Theo Bothma as project leader.

The Report is available at <http://www.ifla-world-report.org>, and also links from the IFLA homepage (<http://www.ifla.org/>) and the FAIFE pages of the World Report Series (<http://www.ifla.org/en/publications/iflafafe-world-report-series>).

The project brief from IFLA HQ was that the publication should be redesigned as a web application with no paper equivalent and that the questionnaire should be revised to report on positive FAIFE-related library initiatives as well. It was decided to collect data electronically via web forms on a secure website (with the option of downloading an MS Word file for those that had problems with Internet access or wanted to share the work with colleagues). The questionnaire was expanded to include questions on legal and social issues, for example questions on copyright, library initiatives for providing information to different categories of citizens (such as senior citizens, women, the disabled and visually impaired) and the role of libraries in universal primary education and environmental sustainability. The system was piloted, the questionnaires were translated into Spanish and French and e-mails were sent out to prospective respondents. After many e-mail requests for participation, many failed addresses, many reminders and many extensions, 122 countries submitted their responses (compared to 116 in 2007 and 84 in 2005).

Additional resources were also consulted for incidents of violations regarding freedom of access to information and freedom of expression (as in the past). The individual country reports were written, copy-edited, revised with input from respondents; usability testing was done and some features were adapted based on user feedback.

There are two primary access interfaces to the World Report. The first is a Google maps interface on which one can select one or more countries for which the report has to be displayed. One can then display either the full report per country or customise the report by selecting only specific questions to be displayed. One can also display the data sequentially per country or in a comparative table.

The comparative table format implies that, for example, readers can easily compare numbers of different types of libraries for the selected countries, or see whether library associations have adopted a code of ethics, etc. The second interface allows access to the report per individual question. In this case the report values are shown on a map of the world in different shades depending on the value; by hovering with the mouse over a country one can get the country name and report value. In this case it is therefore possible to see, on a single map, for example, what the Internet access percentages in public libraries for the participating countries are.

Readers can also add comments to the Report as a whole, or to individual country reports. This will be moderated and comments will be either displayed as comments or incorporated into the body of the Report. It is hoped that through reader participation the Report can be updated and be made more detailed.

Based on an analysis of the data it seems as if the situation in the world in general has not improved during the past two years regarding FAIFE principles. There are still many countries where violations of intellectual freedom occur – such incidents were reported in 109 of the 122 countries. There is also much scope for the improved participation in IFLA initiatives and the use of IFLA training materials. However, there are many positive aspects as well where individual libraries have implemented innovative projects to improve access to information.

Theo Bothma. Email: [theo.bothma@up.ac.za](mailto:theo.bothma@up.ac.za)



Figure 1. Google Maps™ interface for the World Report.

Estimated number of research libraries			
University research libraries	22 main libraries	38	167
Source for the number	<a href="#">View</a>	<a href="#">View</a>	<a href="#">View</a>
School libraries	-	About 4000	4033
Source for the number	<a href="#">View</a>	<a href="#">View</a>	<a href="#">View</a>

Figure 2. Data displayed in a comparative table.

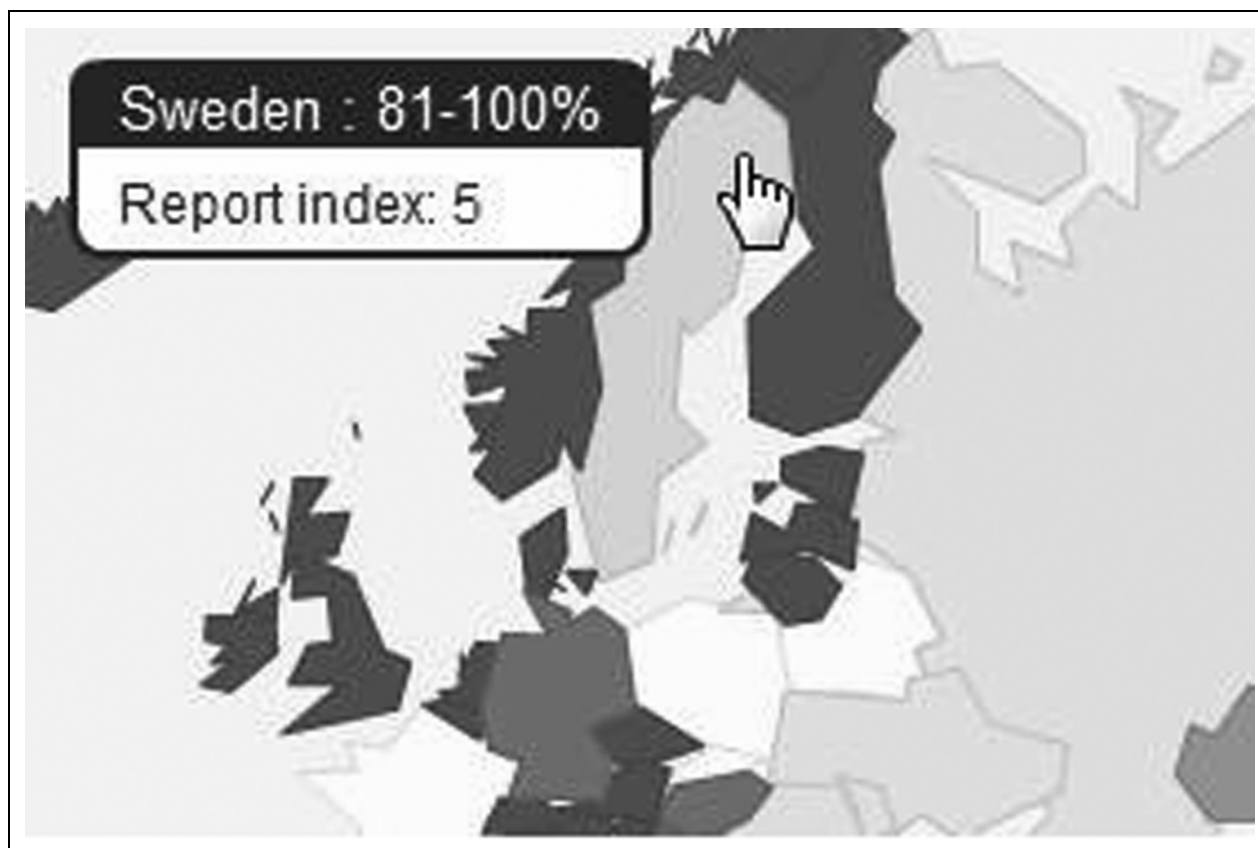


Figure 3. Map with visual presentation of the data.





# IFLA International Newspaper Conference 2010 focused on digital preservation and access to news and views: A report

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**Sanjay K. Bihani**

The four-day IFLA International Newspaper Conference jointly organized by Indira Gandhi National Centre for the Arts and IFLA Newspaper Section was held at IGNCA Campus, New Delhi, India from 25–28 February 2010. Over 220 delegates from 15 countries attended the conference, that was focused mainly on the theme of digital preservation and access to news and views. Discussions during the conference revolved around issues such as archival preservation and conservation of newspapers, policy issues and strategies, digital preservation of traditional and born digital newspapers, online newspapers and digital access to news and views.

Conference Director, Ramesh C. Gaur welcomed the participants and said that this conference was an important event, coming at a crucial point for world's newspaper industry, which itself is in transition. He said it was very important that digital content should be preserved as a priority. Noting that digital preservation was a cost-intensive process that required constant up-gradation due to technological changes, Dr Gaur said the model that had been successful internationally was one of a collaborative effort between libraries, newspapers, IT companies and governments. "Such efforts in Germany, Australia, United States have been successful and allow for universal access to information. In India, we are still in the process of formulating a policy on preserving our archives", he said.

In his introductory address, Frederick Zarndt, Chair of IFLA Newspaper Section, spoke about the importance of selecting what is to be archived. "Budgets are tight, local newspapers are many, news in small local newspapers may not be of importance to historians, but these newspapers are about people, and local communities want their news preserved", said Zarndt. Talking of microfilms, which date to the 1950s, Zarndt pointed out that they last 500 years, but how do you collect the huge mass of online news that is

generated? He gave a very interesting presentation on born digital newspapers.

In his keynote address, Reinhard Altenhoener of the German National Library said that newspapers worldwide carry a whopping 400–500 billion items everyday. "The tricky bit is copyright issues and the overlap between e-paper and online news". It is not feasible or desirable to collect all material, "It's a challenge to evaluate what to preserve", he said.

The conference attracted a wide variety of participants locally and internationally. The conference saw the participation of speakers from leading national libraries and newspaper libraries and archives from various countries, including Australia, Finland, France, Germany, India, Singapore, South Africa, Sweden, the UK and the USA. The conference witnessed about 40 presentations and talks delivered by eminent speakers from India and abroad. The discussions during the conference revolved around issues such as archival preservation and conservation of newspapers, policy issues and strategies, digital preservation of traditional and born digital newspapers, online newspapers, digital access to news and views, etc. The various models, tools and technologies for digital preservation were presented during the conference. Representatives from local Indian media and libraries spoke on topics ranging from open access models, improved access, reading habits, news-clippings services and archiving issues. Two issues at the forefront of discussions were negotiations with newspaper publishers around copyright issues and

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whether to microfilm or not to microfilm as a preservation strategy.

The country reports on completed and ongoing newspaper digitization projects made interesting listening as each national library reported that millions of pages of newspapers from their holdings have been digitized in mass digitization projects. The National Library of Australia has had some interesting outcomes from online user participation in Optical Character Recognition (OCR) correction, with users having corrected millions of lines of digitized newspaper OCR in smart competition to outdo each other. The National Library of Finland has embarked on an ambitious project to digitize all their newspapers by 2022 at the latest. The British government, in November 2009, confirmed a commitment of GBP 33 million to fund the British Library's Newspaper Strategy of extensive, new, state of the art storage buildings, digitization and preservation of a legacy of microfilms. The National Library in Singapore has seen a huge increase in the use of their newspaper collection from 3,300 microfilm users per day to over 81,600 page views within 6 months of making digitized newspapers available online.

The conference ended with a valedictory address by Jawhar Sircar, Secretary of Ministry of Culture. He appreciated the relevance of the conference, particularly for all organizations that preserve and provide access to news resources. He also stressed upon the need to form a professional forum with all stakeholders involved in preservation and provision of access of news resources by setting up national standards and benchmarks for effective use of various resources, including grants and funds from the government.

During a vote of thanks, Conference Director Dr Gaur said the meeting was very successful in

achieving its objectives. The conference led to a number of recommendations for the future course of action among newspaper libraries. The important ones were to form a forum of professionals for newspaper libraries in India to address their development needs; to come out with a state-of-the-art report on newspaper libraries in India, and to create a directory of global newspaper libraries. It is also recommended that the IFLA newspaper section, after a careful evaluation, come out with a list of open source digital archiving software packages, that would meet the specific requirements of newspaper libraries and other organizations involved in preserving and providing access to news resources. An online directory of newspaper libraries worldwide, with country specific listing, is also on the anvil.

The conference also felt the need for government-funded institutions such as IGNCA, national libraries and state public libraries to share their technical resources and digital archiving software with smaller libraries, including newspaper libraries. Faced with the challenge of preservation of traditional and digital newspapers in the wake of rapid technological advancement and the need for universal access, stakeholders felt that libraries, IT companies and governments must collaborate to ensure that content is not lost.

*Conference papers are available at [http://www.ignca.nic.in/IFLA2010/ifla\\_papers.htm](http://www.ignca.nic.in/IFLA2010/ifla_papers.htm)*

#### **About the authors**

**Sanjay K. Bihani** is a member of the IFLA Standing Committees on Government Libraries, Regional Section: Asia and Oceania (RSCAO), and Copyright and Legal Matters (CLM), and of the IFLA Journal Editorial Committee.



## News

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Library Associations and Institutions  
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### Policies and plans

#### *IFLA Strategic Plan 2010–2015*

The *IFLA Strategic Plan 2010–2015* is now available online at <http://www.ifla.org/files/hq/gb/strategic-plan/2010-2015.pdf>

With this Strategic Plan the IFLA Governing Board sets out IFLA's strategic directions and goals for 2010–2015. It is a Strategic Plan to guide the governance and the entire activities of the IFLA organization.

The new vision and mission statement that are included in the plan, firmly position IFLA as the leading international member organization within the knowledge society of today, strengthening not only the library and information field, but also focusing on society as a whole, by driving equitable access to information and knowledge for all.

Where all professional groups of IFLA remain responsible for their own strategic planning, the Strategic Plan 2010–2015 is to guide the governance and the entire activities of the IFLA organization, based on the following four Strategic Directions:

- Empowering libraries to enable their user communities to have equitable access to information;
- Building the strategic capacity of IFLA and that of its members;
- Transforming the profile and standing of the profession;

- Representing the interests of IFLA's members and their users throughout the world.

At its May 2010 meeting the Governing Board endorsed the Strategic Plan and during the Congress in Gothenburg the IFLA Sections and Core Activities all discussed the plan at their business meetings. This started the process to identify possible actions to be picked up by each professional unit, and to connect the action plans of the professional groups with the overall Strategic Plan. This way the strategic planning cycle of IFLA will become an integrated part of the IFLA organization. The Strategic Plan for 2010–2015 will provide IFLA with solid guidance for an innovative future.

#### *Library Statistics Manifesto*

“Libraries and information services serve society by preserving memory, feeding development, enabling education & research, and supporting international understanding & community well being.” (Alex Byrne 2005)

*Library statistics: data can make a difference.* Quantitative and qualitative data about library services, library use and library users are essential for revealing and confirming the outstanding value that libraries provide.

As the informative value of such statistics depends on their comprehensiveness and speed, the participation of all libraries in the country will be necessary.

Library statistics are necessary for the effective management of libraries, but they are still more important for promoting library services to the different types of stakeholders: policy makers and funders, library managers and staff, actual and potential users, the media and the general public. Where statistics are aimed at policy makers, managers and funders, they are essential for decisions on levels of service and future strategic planning.

Library statistics can reveal a wealth of material, of hidden success stories where libraries have opened

and ensured access to relevant information for all groups of the population.

*What library statistics show.* By measuring the input into libraries (resources including buildings and equipment, staff and collections), library statistics show the engagement of politics and authorities for library services.

By counting the output, the usage of traditional and new electronic library collections and services, libraries show that their services are adequate to the respective population. Comparing input and output data demonstrates whether libraries are organizing their services in a cost-effective way.

Data about the use and acceptance of library services can also indicate the outcome of libraries on the population. Such outcome (on literacy, information seeking skills, educational success or social inclusion) will be more visible where qualitative data from user surveys are added to statistical results.

Libraries have assumed new responsibilities in a changing information world; they need new statistics for managing and promoting these new tasks.

*Quality of library statistics.* Correct, reliable and comparable data are crucial for the value and usefulness of library statistics. The quality of national – and finally from them international – library statistics depends on accurate and timely delivery by each library and on careful editing to detect errors and misunderstandings. To make results comparable between regions or countries, the same definitions and methods must be used.

Libraries are not all under the same authority. Most of them serve specified institutions (universities, commercial firms) or communities. Other institutions may be responsible for the mission, functioning, or legal regulation of libraries in their domain. Therefore various institutions and organizations with differing objectives may feel responsible for collecting data about the libraries within their authority.

The collection of library data will always start in the individual library, but the aim should be a compilation of the data on the regional and national level. For this purpose, libraries should collaborate to form regional/national networks for library statistics in order to ensure that a national library system is running effectively.

*The model questionnaire.* Given this variety in responsibilities for library statistics, it is all the more crucial that a uniform questionnaire with standardized data and methods be used.

Therefore, a model questionnaire for public and academic libraries has been developed in a joint project of IFLA and UNESCO and ISO, the International Organization for Standardization. Based on the ISO standard for library statistics, a questionnaire with 23 questions has been developed that considers both traditional and electronic library services. Trials in Latin America and the Caribbean have proved the feasibility of utilizing the model questionnaire for collecting library statistics on a comparable basis.

The model library statistics reveal input and output of libraries and show the library's role as access point to information, as meeting and communication centre, as place for learning and research. More information can be gained if the results of the questionnaire are set in relation to socio-demographic data collected by UNESCO and other international agencies, e. g. the state of literacy, education and Internet access in a country.

*Funding, legislation and networks.* Governments and other relevant decision-making bodies are encouraged to establish and adequately fund central units for the compilation of national library statistics on the basis of the model questionnaire and to support local and regional bodies in collecting them.

The international community should support libraries and information services in collecting and comparing uniform reliable statistics of their resources and services and thus promoting and supporting the role of libraries for literacy and information literacy, education and culture.

IFLA and UNESCO stand ready to support the development of systems for national library statistics to ensure that libraries are run effectively and that libraries' contributions to the knowledge society are recognized.

In order to achieve reliable data, teaching modules for library statistics should be developed in international cooperation. The ultimate aim must be on the one side to have individual libraries using statistics for effective management, on the other side to compile and coordinate library data on a national and finally international scale in order to visualize libraries' contribution to learning and literacy and to social, cultural and economic development.

*Implementing the Manifesto.* Decision makers at all levels and the library community around the world are hereby requested to disseminate this Manifesto and to carry out the principles and actions expressed herein.

*Approved by the Governing Board in May 2010.*

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## Membership matters

### New members

We bid a warm welcome to the 41 members who have joined the Federation between 26 June and 30 September 2010.

### Institutional members

BRAC Education Programme, Bangladesh  
 Université de Djibouti, Centre de Documentation Universitaire, Djibouti  
 Biblioteca Nacional Pedro Henriquez Ureña, Dominican Republic  
 Cairo University Central Library, Egypt  
 The Mombasa Polytechnic University College, Kenya  
 Service Commun de la Documentation de l'Université des Antilles et de la Guyane, Martinique  
 Librarians' Registration Council of Nigeria (LRCN), Nigeria  
 Research Service, Swedish Parliament, Sweden  
 The University of the West Indies, Open Campus Library, Trinidad and Tobago  
 Nilüfer Municipality Akkiliç Library, Turkey  
 Verkhovna Rada of Crimea, Ukraine

### National associations

Cyprus Association of Librarians–Information Scientists (CALIS), Cyprus  
 Asociación de Bibliotecarios y Documentalistas Amazónicos (ABDA), Peru

### One-person library centre

IST Austria Library, Austria

### Personal affiliates

Julio Díaz Jatuf, Argentina  
 Georgina Bourke, Australia  
 Judith Oke, Australia  
 Théodore Aglassa, Benin  
 Michael May, Canada  
 Else Delaunay, France  
 Lesley Gaj, Iraq  
 Silvia Arena, Italy  
 Angeline Djampou, Tanzania, United Republic of  
 Sandra Fritz, Turkey  
 Erika Linke, United States

Karla Strand, United States  
 Brian Geiger, United States  
 Catherine Morales, United States  
 Sylvia Y. Curtis, United States  
 Joseph Meloche, United States  
 Mina Pease, United States

### Student affiliates

Ling Hong, China  
 Ruonan Lin, China  
 Alejandro Uribe Tirado, Colombia  
 Mareike Zimmermann, Germany  
 Katharina Häring, Germany  
 Chiara Consommi, Italy  
 Nelson Ernesto Garcia, Paraguay  
 Kelly Dagan, United States  
 Mary Cassibry Kramer, United States  
 Jess Vargas Robinson, United States

## Gothenburg conference

### IFLA Grantees in Gothenburg, August 2010

After general announcements for IFLA-supported Grants for Gothenburg were made in early 2010, we received 235 applications from 50 different countries. Thanks to the support of a number of sponsors, IFLA was able to help more than 40 colleagues from Asia/Oceania, Africa, Latin America and the Caribbean to attend last month's Congress in Gothenburg, Sweden. A number of the grantees have submitted narrative reports documenting their personal experiences at the Congress. Please read them at <http://www.ifla.org/en/news/ifla-2010-conference-grantees-reports>

IFLA gratefully acknowledges the support of its sponsors, who together provided over €100.000:

- The Swedish Library Association
- Axiell Library Group, Sweden
- Stichting IFLA Foundation, Netherlands
- Walter de Gruyter Stiftung, Germany
- NBD/Biblion, Netherlands
- FOBID, Netherlands
- Shawky Salem, Egypt
- Henning Mankell, Sweden

## Future IFLA conferences and meetings

### Puerto Rico 2011

The World Library and Information Congress 2011, 77th IFLA General Conference and Assembly, will take place the Puerto Rico Convention Centre, San Juan, Puerto Rico from 13–18 August 2011. Theme: Libraries beyond libraries: Integration, Innovation and Information for all. For a short video introduction to San Juan

and Puerto Rico, please visit this YouTube link: <http://www.youtube.com/watch?v=twdEw6ufw1U>

More information regarding the 77th IFLA General Conference and Assembly will be available on the IFLA website, <http://www.ifla.org/>

### Helsinki 2012

The World Library and Information Congress: 78th IFLA General Conference and Assembly, will take place in Helsinki, Finland from 11–16 August 2012. Theme: Libraries Now!—Inspiring, Surprising, Empowering.

*Further information from:* Josche Ouwerkerk, Conference Officer, IFLA Headquarters, PO Box 95312, 2509 CH The Hague, Netherlands. Tel. +31 70 314 0884. Email: [josche.ouwerkerk@ifla.org](mailto:josche.ouwerkerk@ifla.org)

### IFLA publications

#### *IFLA Directory 2009–2011*

The Hague, IFLA Headquarters, 2010. Available for download in PDF at <http://www.ifla.org/files/hq/membership/ifla-directory-2009-2011.pdf> (165 pages–4.71 MB)

The *IFLA Directory 2009–2011* is a guide to the organizational structure of IFLA. It contains in one place a listing of the names and contact details of the members of the Governing Boards and its committees and the steering bodies of all the professional units. It lists contact details for the staff of all the IFLA Offices around the world, as well as information about the IFLA website, our various publications series, and the IFLA Voucher scheme.

As in previous editions of the directory, the period covered in this edition coincides with the terms of office for Governing Board Members and Standing Committee Officers. We have included the latest revised versions of the Statutes adopted by Council in 2008 and the Rules of Procedure adopted by the Governing Board in 2008.

IFLA is very grateful for NBD/Biblion, Leidschendam, Netherlands for the sponsoring and production of this edition of the *IFLA Directory*.

IFLA Members receive the *IFLA Directory* as part of the membership benefit package. The *IFLA Directory* is also for sale for non-members. IFLA HQ hopes that the *IFLA Directory 2009–2011* proves to be a valuable tool in your professional work. We welcome corrections, as well as constructive comments and suggestions for the further improvement of the directory, which can be sent to us at: [ifla@ifla.org](mailto:ifla@ifla.org). All comments will be carefully considered when we plan the next edition.

*Further information:* IFLA Headquarters, PO Box 95312, 2509 CH The Hague, Netherlands. Tel. +31 70 314 0884. Fax +31 70 3834827. Email: [ifla@ifla.org](mailto:ifla@ifla.org)

### *IFLA World Report 2010*

Available free of charge online at: <http://www.ifla-world-report.org/>

IFLA is pleased to announce the launch of its brand new *World Report*. For the first time, the *World Report* is being made available online in a fully searchable database, complete with graphical map interface. By clicking on a country's marker, you can either select 'View individual report' if you would like to view a single country's report or 'Add to report list' in order to view multiple countries in one report. The report includes questions on:

- Internet access in libraries
- Copyright
- Library initiatives for providing information to different categories of citizens (such as senior citizens, women, the disabled and visually impaired)
- The role of libraries in universal primary education and environmental sustainability
- And much more!

The report has been developed by a team at the University of Pretoria led by Professor Theo Bothma and contains details of the library environment in 122 countries. Users have the possibility to add comments to the report as a whole or to individual country reports. The analysis of the data shows on one hand that there are still many countries where violations of intellectual freedom occur—such incidents were reported in 109 of the 122 countries— and on the other that there are many positive aspects where individual libraries have implemented innovative projects to improve access to information.

The World Report series is a biennial report series that reports on the state of the world in terms of freedom of access to information, freedom of expression and related issues. The reports are available online at <http://www.ifla.org/en/publications/iflafaiife-world-report-series> and can be downloaded free of charge.

### *IFLA Presidential Newsletter No 4 September 2010*

The fourth issue of the *IFLA Presidential Newsletter* (No. 4 September 2010) is out now. See <http://www.ifla.org/en/news/ifla-presidential-newsletter-no-4-september-2010> for the version including pictures and hyperlinks.

## From other organizations

### *Strengthened library and information links between UK and New Zealand*

The two leading library and information professional bodies in the UK and New Zealand, CILIP and LIANZA, have signed an agreement that establishes recognition of each other's professional qualifications. The agreement was signed at the International Federation of Library Associations conference in Gothenburg, Sweden.

This is the first international agreement of its type in the library and information profession, and is one of a very small number of similar agreements reached between UK and non-UK based professional bodies.

The agreement means that Chartered members of CILIP (MCLIP) and Registered members of LIANZA (RLIANZA) will benefit from enhanced mobility and employability. The agreement takes effect immediately and is available to all holders of MCLIP and RLIANZA.

CILIP runs an international job exchange, LIBEX, which helps its members to exchange jobs with library and information staff around the world. Find out about CILIP's services to help you find library and information work in the UK.

*Further information:* Marion Huckle, Head, Qualifications and Professional Development, CILIP. Tel: 020 7255 0610. Email: marion.huckle@cilip.org.uk

## Other publications

### *Librarianship in the South*

The Royal Tropical Institute (KIT) Amsterdam, the Netherlands, has launched a new portal: [http://portals.kit.nl/Librarianship\\_in\\_the\\_South](http://portals.kit.nl/Librarianship_in_the_South) offering a website of free and full-text internet resources on library and information management and knowledge sharing (incl. e-publications, websites, databases, audio-visuals, photographs).

The website has been developed and managed by the Information & Library Services (ILS) department of KIT with support from all its project partners in the South and aims at library development.

Add this searchable online library to your favorites! RSS and email alerts will keep you informed of the latest resources added, as well as of news and events. Librarians from all over the world are asked to contribute to this website.

Tell us what you think; share your publications, links, thoughts, photographs (on libraries and library staff) and ideas... We have joined Twitter <http://twitter.com/LibintheSouth> and Facebook

<http://www.facebook.com/home.php?sk=lf#!/pages/Librarianship-in-the-South/123477107692887?ref=mf> to build our libraries for development platform but we need your help to make the most of these social media.

*Further information:* Henk van Dam, MA (editor) Email: [Portal\\_Librarianship\\_in\\_the\\_South@kit.nl](mailto:Portal_Librarianship_in_the_South@kit.nl)

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## Obituaries

### *In Memory of Bob McKee (1950–2010)*

The following memories of Bob McKee are reproduced from the *IFLA Presidential Newsletter* No. 4 September 2010:

*From Ellen Tise, IFLA President.*

Dear Colleagues,

It is with mixed emotions that I start this Newsletter. Whilst looking back at a very successful IFLA World Library and Information Congress 2010 in Sweden, we mourn the passing away of former IFLA Governing Board member, colleague and friend Bob McKee. Bob died on 13 August 2010 in Gothenburg, while he was attending our IFLA Congress. As a gesture of honour to Bob McKee, who meant so much to the international library world and to IFLA in particular, this Newsletter is partly in his memory.

To commemorate Bob and his contribution to IFLA, I have asked a few IFLA colleagues who have worked with Bob and who have known him for many years, to share their thoughts about Bob with us. I especially thank my IFLA colleagues for their warm and personal contribution. Once again, I would like to convey my heartfelt condolences to Bob McKee's family, the CILIP staff and the many friends and colleagues around the world. May Bob's spirit continue guiding us with IFLA. He will be sorely missed.

*From Ross Shimmon, IFLA Secretary General, 1999–2004.* Bob succeeded me as chief executive of the (British) Library Association when I left to become secretary general of IFLA in 1999. The LA was then in the throes of a controversial merger with the Institute of Information Scientists. Bob's leadership and personal qualities were, I am sure, instrumental in the successful conclusion of the negotiations and the formation of CILIP. I know that he insisted that CILIP was to be a new organization, not just an amalgamation of two long-established

ones with very different histories, cultures and memberships. CILIP of today is a testament to his drive, conviction and advocacy. Not content with that, he went on to a major reconstruction of the governance of the new body, including its recognition of the vastly changed political situation when the United Kingdom devolved much responsibility to the administrations in Northern Ireland, Scotland and Wales. He was a passionate believer in the value of libraries in the modern world, frequently acknowledged in standing ovations at the end of his speeches. He also ensured that, within the usual financial constraints, CILIP took every opportunity to make use of fast developing communications technology. His blog is evidence of that.

By the time he was elected to the governing board of IFLA, I had retired, so I had no direct experience of working with him. But I know from his occasional visits to us in Kent, from his emails and, perhaps, more telling, from comments from those who were working with him that he contributed with enthusiasm and influence to its work. Many were the references to his ability to sum up governing board discussions with clarity in order to lead to a decision. His 'three points' were renowned throughout the IFLA family. I know that he was greatly looking forward to retirement, not least because it would have given him the opportunity to take part in the Building Stronger Library Associations programme. I am sure that he would have been an inspirational trainer and mentor in that capacity. Alas this is not to be.

His most recent message to me was about looking forward to joining us to watch Kent play his team Warwickshire at Canterbury cricket ground next season. We were looking forward to a convivial time teasing each other about our respective team's abilities and frailties. We would have followed this with an enjoyable meal, finished off with Bob drinking some of my wife Pat's favourite whisky! Alas this is not to be either.

My last message from CILIP was an invitation to Bob's retirement party in October. The best we can do is to remember all the good times with Bob, resolve to carry on attempting to emulate his positive attitude to life and share his powerful belief in libraries with all who will listen.

*From Kay Raseroka, IFLA President 2003–2005.* Bob McKee bade us, the IFLA family, farewell in his inimical style: sharing his passion for our profession.

He was excited about his new role as one of the Core Network Group of facilitators for the IFLA programme: Building Strong Library Associations. Since July he had immersed himself in the two-part training

workshops which were concluded during the 2010 IFLA World Library and Information Congress in Gothenburg with the e-learning module.

During the training sessions he was, as usual, unfazed by the steep learning curve: he welcomed the opportunity for transformation from a distinguished leadership position, on retirement, to being a facilitator of lifelong learning in an effort to enhance effective library associations, on request. When some of us voiced our anxiety and the fear of the unknown, Bob's infectious spirit of enthusiasm was uplifting and encouraging: with his broad smile, arms held widely apart, his response was typical: "lifelong learning, guys! After all, we shall be facilitating team learning. We are not expert trainers, but facilitators: we learn from and with our Library Association colleagues and hold a mirror to ourselves, for mutual benefit!" Yet he masterly integrated his vast experience in library association management and strategic thinking to enrich case study presentations, during the training sessions.

I have had the pleasure of knowing Bob as a colleague and a friend for over ten years both within CILIP and in IFLA. His commitment to the advancement of our profession featured strongly in our discussions, ranging from issues on indigenous knowledge policy such as he had participated in, recently, in New Zealand with LIANZA, and general concern about the future of libraries and their funding worldwide. I have warm memories of his openness during discussions and counsel, as necessary, especially during 2003/2004 years at IFLA: marked by contributions towards addressing challenges we faced then and, together with others, enabling IFLA to soar to great heights on the wings of global citizenship and opportunity.

It is proper for us to express our deep sadness and convey our condolences especially to Bob's family, CILIP President Bidy Fisher and Colleagues and the IFLA family globally, at this time of loss. However, I cannot help but see, with my inner eye, Bob's twinkling eye, smiling broadly, and saying something like: "I beat you to it guys: See you!" May his spirit shine on for him and in memory.

*From Alex Byrne, IFLA President 2005–2007.* Bob McKee typified international librarianship at its best. Engaging, and never patronizing, Bob worked with colleagues worldwide to promote our profession, the benefits it delivers to communities and its ideals. He was a tremendous collaborator, mentor and friend to many in his own country and beyond but especially across the IFLA and CILIP families. From developing a strategy to implement change to sharing a beer after



a long day in committee work, Bob was also willing to share and support.

My own memories of him include the 2002 IFLA Congress held during a heat wave in Glasgow with its theme “Libraries for Life: Democracy, Diversity, Delivery”, a theme which could sum up Bob’s priorities. They also encompass joint efforts to consolidate FAIFE, to reform the governance of IFLA and to promote the role of libraries. Always quick on his feet, Bob could take advantage of a situation as he did when he saw me sitting at the side during a debate on the ‘Danish cartoons affair’ and, without warning, publicly called on me to sum up that rich and controversial discussion. In similar good humour, Bob would perceptively focus the discussion on the core questions during Governing Board considerations of challenging issues, helping the Board to arrive at agreement.

In many ways, Bob was the perfect ‘association man’: he knew how to make organizations work and how to bring people on board to pursue common aims. By applying those talents to international library work on top of his contributions to public libraries and to librarianship in the UK, Bob significantly advanced our profession for the benefit of the communities in which we live.

*From Claudia Lux, IFLA President 2007–2009.* I remember so well Wednesday evening (11.8. 2010) at Sjömagasinet in Gothenburg, when we were eating herring together, invited by IFLA President Ellen Tise. It was a wonderful evening and as always we could talk and laugh together. That evening Bob remembered a day in Berlin, when Nancy, Barbara, he and I worked together on the last draft of the new IFLA Statutes. He remembered the evening we spend together in a nearby restaurant, when he took the bottle of wine to pour it into our glasses and the waiter came, to tell him that this was his task to do. He was laughing at this attitude, always open for different styles but relaxed to take formal things not too serious. I also remembered that day, but more as a wonderful experience to work with him very hard and very effective but also very enjoyable.

I was looking forward to work with him in the new project Building Strong Library Associations. He was assigned to be the facilitator for Ukraine and I was assigned for Lithuania. We were thinking of organizing a meeting together and we were both looking forward to it. At the BSLA tech-training on Thursday morning (12.8.2010) in Gothenburg he was sharing a laptop with Kay and we were sending notes in Moodle to each other, to learn how to use this platform. He

showed no sign of tiredness, but seemed to be full of excitement about his new plans after retirement.

It is so sad, not to see him smile again, not to be able to enjoy his witness and humor or to have the opportunity to spend another evening with him in the bar.

Bob McKee—he was a driving force in the IFLA Governing Board I chaired, always supportive, quick and clear with his famous three points: He could break down anything to three main points, so that everybody would understand and would be able to decide on it. A Great global librarian! A wonderful colleague and friend!

*From Paul Sturges, Chair of FAIFE 2003–2009.* As the tributes to Bob all stress, he was a marvelously warm and generous person, and a clever, enormously knowledgeable and committed colleague. But maybe the tributes fail to draw sufficient attention to the rock solid academic and professional basis on which his contribution was built. Bob owed the refinement of his analytical ability to the experience of completing a PhD in literature. The famous three-point summaries of knotty problems were the product of hours of meticulous study and rigorous thought. Subsequently he had polished his wonderful communication skills as a teacher of LIS in Birmingham and was much loved by a host of former students.

Perhaps slightly unusually in the library profession his career had also included time at the highest levels of city administration in Solihull, West Midlands. There he learned to make the hard and possibly unpopular decisions that are in the end unavoidable in the professional lives of even the most lovable of people.

There was also another side to Bob that was seldom revealed. He carried with him the regrets and pain of bad decisions and unhappy situations in personal life. His empathy with others was demonstrated with total ease, but it had been hard won.

Most of all, however, we are likely to remember that Bob was fun, never happier than in a bar or restaurant, and always to be relied on as an amusing and informed contributor to conversation whether it might be on sport, popular culture or more serious academic or political subjects. To be with him was always a joy: he spread a little light wherever he went.

*From Jennefer Nicholson, IFLA Secretary General.* It is a rare person who you always look forward to seeing, hearing their views, and enjoying their company. Bob McKee was such a person. Over more than 10 years Bob and I have compared notes on association management, and shared our passion for IFLA. He was an excellent association chief executive and an inspirational leader within IFLA.

I was delighted that he was on the Governing Board for my first year as Secretary General of IFLA, and though the nature of our professional relationship then changed from fellow association executives to a more formal one of board member and CEO, we continued our mutual respect and long discussions about the challenges of managing professional associations. He always brought his wise counsel to Governing Board meetings, and previously to FAIFE, and was always supportive of Headquarters staff.

I was also delighted when Bob accepted my invitation to join us as a volunteer coach/core trainer in our Building Strong Library Associations programme after his retirement from CILIP—he was a natural choice to be a guide and mentor to those committed members in a participating library association, that person who will find a unique way to get you thinking about issues and coming up with creative solutions, that person who will let you all discuss and debate and then so simply draw it all together into three points and make the way ahead seem clear and achievable. And Bob said he could think of no better way to continue working within the IFLA family.

We shared birthday drinks at the IFLA Congress. We also indulged in the good humored banter that goes on between Australians and ‘Poms’, but he always refused to discuss the Ashes cricket!

Bob, it’s been a privilege to know you mate.

*CILIP has opened Bob McKee’s blog page for tributes.* Tributes to Bob can be made publicly by posting a comment to this blog, or privately by emailing tributes@cilip.org.uk; Tributes and cards can be sent by post to: Mark Taylor, CILIP, 7 Ridgmount St, London, WC1E 7AE, UK.

### *Maurice Line*

It is with deep sadness that we have to announce that Dr Maurice B. Line FCLIP passed away during the weekend of 18/19 September 2010. Maurice had been ill for some time.

Maurice Line was a towering figure in the library and information profession, nationally and internationally, in the second half of the 20th century.

Maurice had a long and important association with the British Library and he made a major contribution to its development as a leading international research library during its formative years. As Librarian at the

University of Bath he had directed a study into the scope for automated data processing in the new British Library. He was Librarian of the National Central Library (NCL) from 1971–1973 and a member of the British Library Organizing Committee which undertook a range of other preparatory and planning work for the UK’s new national library which was to start operating in July 1973. He joined the British Library in 1973, when the NCL was incorporated into the BL, as Deputy Director-General of the Lending Division. He became Director General in 1974, a post he held until 1985. From 1985 until his retirement in 1988 he was Director General, Science Technology and Industry.

For the next 12 years Maurice worked as a consultant specializing in the management of change, and advising organizations in many parts of the world. He carried out over 50 consultancies in 16 different countries and visited more than 40 countries in a professional context. He was Professor Associate at Sheffield University’s Department of Information Science, and External Professor at Loughborough University’s Department of Information and Library Studies.

Maurice had a broad range of professional interests and his publications literally ran into the hundreds. Some of his titles—for example *On the construction and care of white elephants (on catalogues)*, *How golden is your retriever?*, *Ignoring the user: how, when and why*, *The bonfire of the author’s vanity—underline both his humour, and also his predisposition to challenge professional orthodoxy*. He was editor of *Interlending and Document Supply* and *Alexandria*, the journal concerned with national libraries, their roles and functions and international issue, and it is perhaps in this domain that Maurice had the most profound influence and exerted such thought and professional leadership.

Maurice will be sadly missed by the profession.

At the time of writing, the funeral arrangements were not known. The British Library plans to arrange a celebration of Maurice Line’s life and extraordinary professional contribution and details will be announced in due course.

*The British Library, 24 September 2010*

Further information: Andy Stephens, Board Secretary and Head of International Engagement, The British Library, 96 Euston Road, London NW1 2DB. Tel: (020) 7412 7269 Fax: (020) 7412 7093



## International calendar

International Federation of  
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### 2011

11–13 January, 2011. Kolkata, India,

**International Conference on Digital Library Management (ICDLM).** *Theme:* Extending benefits of modern technology to public, academic and special libraries.

*Further information:* Debal C Kar, Organizing Secretary, ICDLM Secretariat, TERI, Darbari Seth Block, IHC Complex, Lodhi Road, New Delhi – 110 003, India. Tel. +91 (0)11 24644654 / 24682100 / 41504900. Fax: +91 (0)11 24682144 / 24682145. Email [icdl@teri.res.in](mailto:icdl@teri.res.in) Website: [www.teriin.org/events/icdlm](http://www.teriin.org/events/icdlm)

10–12 February 2011. Tokyo, Japan.

**International Conference of Asian Special Libraries (ICoASL 2011).** *Theme:* Building user trust: The key to special libraries renaissance in digital era.

*Further information:* Conference Secretariat: Email: [asiansla@gmail.com](mailto:asiansla@gmail.com) OR [asiansla@plala.to](mailto:asiansla@plala.to) Conference website: <http://units.sla.org/chapter/cas/ICoASL-2011.htm>

14–16 February 2011. Gurgaon, Haryana, India.

**ICDK 2011. International Conference on Digital Libraries and Knowledge Organization.**

*Further information:* <http://www.mdi.ac.in/ICDK/Home.html>

2–4 March 2011. Goa, India.

**8th International CALIBER (Convention on Automation of Libraries in Education and Research Institutions).** *Theme:* Towards building a knowledge society: Library as catalyst for knowledge discovery and management.

*Further information:* INFLIBNET website <http://www.inflibnet.ac.in>.

14–15 March 2011. Queensland, Australia.

**10th Somerset International Conference for Librarians and Teachers.** *Theme:* Inform, Engage, Inspire – Sharing with the Best! Conference: 14 March 2011. Palm Meadows, Queensland, Australia. Workshop 15 March 2011. Mudgeeraba, Queensland, Australia.

*Further information:* Somerset College Limited Somerset Drive Mudgeeraba Queensland 4213 Australia. Tel/Fax +61 (0)7 5559 7340. Email: [library@somerset.qld.edu.au](mailto:library@somerset.qld.edu.au) Website: [www.somerset.qld.edu.au/conflib](http://www.somerset.qld.edu.au/conflib)

30 March–2 April 2011. Philadelphia, Pennsylvania, USA.

**Association of Research and College Libraries (ACRL) Conference.**

*Further information:* Michael Dowling, Director, International and Chapter Relations Offices, American Library Association, 50 E Huron St., Chicago, IL, USA. Tel. +1 800-545-2433 ext 3200. Fax: +1 312-280-4392. Website: <http://www.ala.org/ala/mgrps/divs/acrl/events/national/2011/program/index.cfm>

31 March–2 April 2011. Ljubljana, Slovenia.

**World Book Summit.** *Theme:* Book: The bearer of human development.

*Further information:* <http://www.wbs2011.si/home>

11–13 May 2011. Brisbane, Australia.

**Third International m-Libraries Conference.**

*Further information:* <http://mobile-libraries.blogspot.com/2010/06/third-international-m-libraries.html>

19–21 June 2011. Aarhus, Denmark.

**Next Library.** *Themes:* Democracy, Innovation, Partnerships.

*Further information:* Aarhus Public Libraries, Lotte Duwe Nielsen. Email: [Ldn@aarhus.dk](mailto:Ldn@aarhus.dk) Conference website: [www.nextlibrary.net](http://www.nextlibrary.net)

27–30 June 2011. Greater Manchester, UK.

**EBLIP6: 6th International Evidence Based Library and Information Practice Conference – Valuing Knowledge and Expertise.**

*Further information:* Conference website: <http://www.eblip6.salford.ac.uk/>

24–29 July 2011. Dublin, Ireland.

**International Association of Music Libraries, Archives and Documentation Centres (IAML) Conference.**

*Further information:* <http://www.iaml.info/en/activities/conferences> or email Roger Flury, AML Secretary General at: [roger.flury@natlib.govt.nz](mailto:roger.flury@natlib.govt.nz)

13–18 August 2011. San Juan, Puerto Rico.

**IFLA World Library and Information Congress: 77th IFLA General Conference and Council.**

*Theme:* Libraries beyond libraries: integration, innovation and information for all.

*Further details:* IFLA Headquarters, PO Box 95312, 2509 CH The Hague, The Netherlands. Phone: +31 70 314 0884. Fax: +31 70 383 4827. Email: [ifla@ifla.org](mailto:ifla@ifla.org). OR Puerto Rico National Committee, IFLA 2011, San Juan, Puerto Rico. Email [ifla2011.puertorico@upr.edu](mailto:ifla2011.puertorico@upr.edu) OR [executivesecretariat@acuril.org](mailto:executivesecretariat@acuril.org)

10–12 October 2011. Chicago, Illinois.

**12th Interlending and Document Supply Conference (ILDS).**

*Further information:* Mary A. Hollerich, Director, Lewis University Library, 1 University Parkway, Romeoville, IL 60446, USA. Tel. +1 847-275-0666 (cell). Email: [mary.hollerich@gmail.com](mailto:mary.hollerich@gmail.com)

**2012**

11–16 August 2012. Helsinki, Finland.

**IFLA World Library and Information Congress: 78th IFLA General Conference and Council.** *Theme:*

Libraries Now! – Inspiring, Surprising, Empowering.

*Further information:* Josche Ouwerkerk: <http://www.ifla.org/en/hq#josche-ouwerkerk>

**2012–2015**

2012 Canada; 2013 Denmark, Århus; 2014 Austria, Vienna; 2015 USA, New York

**International Association of Music Libraries, Archives and Documentation Centres (IAML).**

*Further information:* <http://www.iaml.info/en/activities/conferences> or email Roger Flury, AML Secretary General at: [roger.flury@natlib.govt.nz](mailto:roger.flury@natlib.govt.nz)



## Abstracts

International Federation of  
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### Sommaires

**Diversity in librarianship: The United States perspective. [Diversité bibliothécaire: la perspective des Etats-Unis.]**

Anjali Gulati

IFLA Journal 36 (2010) No. 4 pp. 288–293

Cet article a pour but d'expliquer comment le concept de diversité a été abordé dans la littérature professionnelle. Il évoque comment la diversité a été comprise et mise en œuvre dans le contexte des bibliothèques communautaires tribales, bibliothèques publiques, bibliothèques universitaires et scolaires ainsi que dans les statistiques de diversité des professionnels des bibliothèques. L'article fait ressortir quelques questions importantes au sujet de la diversité dans les bibliothèques, notamment: dotation en personnel, recrutement et fidélisation du personnel; recrutement d'étudiants et de professeurs de couleurs dans les écoles bibliothécaires; services bibliothécaires et climat d'organisation. L'article conclut en évoquant plusieurs défis auxquels est confrontée la profession bibliothécaire, notamment le manque de représentation des minorités parmi les étudiants et le corps professoral, et fait des recommandations pour surmonter ces défis.

**Preserving traditional knowledge: Initiatives in India. [Préserver le savoir traditionnel: initiatives en Inde.]**

Rupak Chakravarty

IFLA Journal 36 (2010) No. 4 pp. 294–299

Le savoir traditionnel est un atout précieux pour tout pays dans la mesure où il joue un rôle vital pour permettre à une nation de progresser et transformer sa société. Cet article traite de la nécessité de préserver le savoir traditionnel. Il décrit le rôle de la Bibliothèque numérique du savoir traditionnel et ses activités en vue de préserver le savoir médical traditionnel en Inde.

**Assessing information literacy competency of Information Science and Library Management graduate students of Dhaka University. [Évaluer les compétences en matière de maîtrise des informations des étudiants diplômés en sciences de l'information et gestion bibliothécaire de l'Université de Dhaka.]**

Md. Anwarul Islam et Keita Tsuji

IFLA Journal 36 (2010) No. 4 pp. 300–316

Le but de cette étude est d'évaluer les compétences en matière de maîtrise des informations des étudiants diplômés en sciences de l'information et gestion bibliothécaire de l'Université de Dhaka au Bangladesh, et de déterminer leurs forces et leurs faiblesses. En général, on a constaté que les étudiants ont des aptitudes limitées en ce qui concerne la maîtrise des informations, cette matière étant insuffisamment abordée dans le courant de leurs études. La présente étude conseille vivement d'incorporer un cours de maîtrise des informations dans le programme d'enseignement, ainsi qu'un plus grand nombre de travaux écrits, de discussions et d'autres sujets appropriés susceptibles de permettre aux étudiants de mieux maîtriser les informations.

**Research output in the field of natural sciences: A bibliometric case study of Jamia Millia Islamia University, New Delhi. [Résultat de la recherche en sciences naturelles: une étude de cas bibliométrique de l'université Jamia Millia Islamia, New Delhi.]**

Shailendra K et Shehbaz Husain Naqvi

IFLA Journal 36 (2010) No. 4 pp. 317–324

Cette étude est une analyse bibliométrique des résultats de la recherche de l'université Jamia Millia Islamia de New Delhi dans le domaine des sciences naturelles. Un total de 1313 documents sous forme d'articles de revues (984), de contributions à des conférences (273) et de livres (56) ont été analysés. La loi

de Bradford et la loi de Lotka ont été testées et on a constaté qu'elles s'appliquaient à ces données.

**Non-users' evaluation of digital libraries: A survey at the Università degli studi di Milano. [Évaluation des non-utilisateurs des bibliothèques numériques: une étude menée à l'Università degli studi di Milan.]**

Chiara Consonni

IFLA Journal 36 (2010) No. 4 pp. 325–331

L'auteur présente les résultats d'un questionnaire d'enquête portant sur les non-utilisateurs des services de la bibliothèque numérique à l'Università degli Studi di Milano. Le public visé par cette enquête comprenait des étudiants, des membres du corps enseignant et des membres du personnel technico-administratif de l'université. La recherche s'est axée sur les 'non-utilisateurs de fait', qui ont utilisé le service une fois, puis décidé de ne plus l'utiliser. Les résultats ont montré que ces non-utilisateurs, malgré l'utilisation limitée des équipements de la bibliothèque numérique, pensaient être familiers du service et le considéraient comme satisfaisant. Ils ne l'ont plus utilisé pour diverses raisons, principalement parce qu'ils n'en avaient plus besoin, où parce qu'ils s'étaient mis à utiliser un autre service. Certaines faiblesses du service ont été soulignées, en particulier son manque de convivialité et la disponibilité limitée de matériel dans certaines disciplines. La recherche a aussi montré la diversité des raisons pour lesquelles on accédait au service: pour

la préparation de mémoires, la recherche, se tenir au courant, mais aussi dans le cadre d'intérêts personnels. Les résultats ont confirmé qu'on en savait très peu à propos des non-utilisateurs et ont soulevé de nombreuses questions inédites et controversées, qui devraient forcer la communauté scientifique à se pencher plus sérieusement sur ces non-utilisateurs. Cet article a remporté le prix de l'IFLA LIS 2010 décerné au meilleur article rédigé par un(e) étudiant(e).

**Building capacity through the IFLA Building Strong Library Associations programme. [Développer les capacités grâce au Programme de l'IFLA de développement d'associations bibliothécaires puissantes.]**

Fiona Bradley

IFLA Journal 36 (2010) No. 4 pp. 332–334

Une introduction au Programme de développement d'associations bibliothèques puissantes conçu par la Fédération internationale d'associations de bibliothécaires et d'institutions. Ce programme est déployé dans le cadre de projets nationaux comprenant des ateliers de formation, un encadrement par des spécialistes, des activités mixtes en ligne et des activités de programme croisé spécialement mises au point. Trois projets nationaux par an seront mis en œuvre de 2010 à 2012, un de chaque en Afrique, Asie et Océanie, en Amérique latine et aux Caraïbes. Le programme sera évalué sur trois niveaux afin de garantir le caractère durable du programme et de chaque projet national.

## Zusammenfassungen

**Diversity in librarianship: The United States perspective. [Diversität im Bibliothekswesen: Die Perspektive der Vereinigten Staaten.]**

Anjali Gulati

IFLA Journal 36 (2010) No. 4 pp. 288–293

In diesem Beitrag soll erläutert werden, wie die professionelle Literatur mit dem Konzept der Diversität umgeht; zudem wird dargelegt, wie die Diversität im Kontext der Bibliotheken von Stammesgemeinschaften, öffentlichen Bibliotheken, Unibibliotheken und Schulbibliotheken verstanden und implementiert worden ist. Außerdem wird die Diversitätsstatistik der professionellen Bibliotheksmitarbeiter präsentiert. Der Artikel unterstreicht einige wichtige Themen im Zusammenhang mit der Diversität in den Bibliotheken, wie beispielsweise die Stellenbesetzung sowie die Anwerbung und Bindung von Mitarbeitern; das

Werben um Studenten und farbige Lehrkräfte an Bibliotheksschulen; Bibliotheksservices und das Firmenklima. Abschließend kommen gewisse Herausforderungen des Berufsstands der Bibliothekare zur Sprache, beispielsweise die Untervertretung von Minderheiten bei den Studenten und im Lehrkörper. Entsprechende Empfehlungen zum Umgang mit diesen Herausforderungen runden den Beitrag ab.

**Preserving traditional knowledge: Initiatives in India. [Die Erhaltung des traditionellen Wissensschatzes: Initiativen in Indien.]**

Rupak Chakravarty

IFLA Journal 36 (2010) No. 4 pp. 294–299

Traditionelle Kenntnisse sind ein wertvolles Gut für alle Länder, da sie überall eine wichtige Rolle im Zusammenhang mit dem Fortschritt und dem gesellschaftlichen Wandel spielen. Der vorliegende

Beitrag bespricht die Notwendigkeit der Erhaltung des traditionellen Wissensschatzes. Der Artikel beschreibt die Rolle der „Traditional Knowledge Digital Library“ und ihrer Bemühungen zur Erhaltung der traditionellen medizinischen Kenntnisse in Indien.

**Assessing information literacy competency of Information Science and Library Management graduate students of Dhaka University. [Die Bewertung der Informationskompetenz von Doktoranden der Informatik und Bibliotheksverwaltung an der Universität von Dhaka.]**

Md. Anwarul Islam und Keita Tsuji  
IFLA Journal 36 (2010) No. 4 pp. 300–316

Diese Studie zielt darauf ab, die Informationskompetenz von Doktoranden der Informatik und Library Management (ISLM) an der Universität von Dhaka in Bangladesh zu ermitteln und ihre Stärken und Schwächen festzustellen. Generell hat sich dabei gezeigt, dass die Studenten nur begrenzte Fähigkeiten im Bereich der Informationskompetenz aufwiesen – ein Thema, das im akademischen Lehrplan nicht umfassend behandelt wird. Die vorliegende Studie drängt auf die Einbeziehung der Informationskompetenz in den Lehrplan. Außerdem sollen das Schreiben, die Diskussion und weitere relevante Themen in die Ausbildung einbezogen werden, um die Informationskompetenz der Studenten zu verbessern.

**Research output in the field of natural sciences: A bibliometric case study of Jamia Millia Islamia University, New Delhi. [Forschungsergebnisse im Bereich der Naturwissenschaften: Eine bibliometrische Fallstudie an der Jamia Millia Islamia - Universität in New Delhi.]**

Shailendra K und Shehbaz Husain Naqvi  
IFLA Journal 36 (2010) No. 4 pp. 317–324

Diese Studie beinhaltet eine bibliometrische Analyse der Forschungsergebnisse im Fachbereich Naturwissenschaften der Jamia Millia Islamia - Universität in New Delhi. In diesem Zusammenhang wurden insgesamt 1313 Aufzeichnungen in Form von Zeitschriftenartikeln (984), Tagungsberichten (273) und Büchern (56) analysiert. Die Daten wurden dann anhand der Gesetze von Bradford und Lotka überprüft, wobei sich herausstellte, dass sie auf diese Daten zutrafen.

**Non-users' evaluation of digital libraries: A survey at the Università degli studi di Milano. [Die Bewertung digitaler Bibliotheken durch Nichtnutzer: Eine Umfrage an der Università degli studi di Milano.]**

Chiara Consonni  
IFLA Journal 36 (2010) No. 4 pp. 325–331

Dieser Text präsentiert die Ergebnisse einer Umfrage unter Nichtnutzern des digitalen Bibliotheksservice an der Università degli Studi di Milano, die anhand eines Fragebogens durchgeführt wurde. Zur Zielgruppe dieser Umfrage zählten Studenten, Lehrkräfte und technische Mitarbeiter / Verwaltungspersonal der Universität. Die Studie konzentrierte sich schwerpunktmäßig auf die „faktischen Nichtnutzer“, die den Service einmal in Anspruch genommen und sich danach entschlossen haben, dies nicht mehr zu tun. Die Ergebnisse zeigen, dass faktische Nichtnutzer trotz der begrenzten Nutzung der digitalen Bibliothekseinrichtungen davon überzeugt waren, dass sie diesen Service gut kannten und dass er ihrer Meinung nach zufriedenstellend war. Sie nutzten ihn aus mehreren Gründen nicht mehr, hauptsächlich deswegen, weil sie ihn nicht mehr benötigten oder auf einen anderen Service umgestiegen waren. Außerdem wurden einige Schwächen des Service unterstrichen, insbesondere die fehlende Benutzerfreundlichkeit und die begrenzte Verfügbarkeit von Materialien in einigen Fachbereichen. Zudem hat die Umfrage gezeigt, dass der Service aus diversen Gründen genutzt wurde, beispielsweise im Zusammenhang mit Abschlussarbeiten/Dissertationen, für Forschungszwecke und um auf dem Laufenden zu bleiben, aber auch aus persönlichem Interesse. Die Ergebnisse bestätigen, wie wenig über die Nichtnutzer bekannt ist. Gleichzeitig tauchen in diesem Zusammenhang viele neue und kontroverse Fragen auf, was als Anlass für die Wissenschaft dienen sollte, die Gruppe der Nichtnutzer genauer zu analysieren. Dieser Beitrag hat den IFLA LIS Student Paper Award 2010 gewonnen.

**Building capacity through the IFLA Building Strong Library Associations programme. [Schaffung von Kapazitäten im Rahmen des IFLA-Programms Building Strong Library Associations.]**

Fiona Bradley  
IFLA Journal 36 (2010) No. 4 pp. 332–334

Hierbei geht es um die Einführung in das Building Strong Library Associations – Programm der International Federation of Library Associations and Institutions (des weltweiten Verbandes der Bibliotheksorganisationen, Informationsfachleute und Bibliothekare). Das Programm stützt sich auf nationale Projekte mit Workshops, die Überwachung durch Fachleute, den gemischten Online-Einsatz sowie speziell entwickelte programmübergreifende Aktivitäten. Zwischen 2010 und 2012 wird es drei nationale Projekte im Jahr geben, jeweils eins in Afrika, Asien und Ozeanien

sowie in Lateinamerika und der Karibik. Die Bewertung des Programms erfolgt auf drei Ebenen, um die

Nachhaltigkeit des Programms und der einzelnen Länderprojekte zu gewährleisten.

## Resúmenes

### **Diversity in librarianship: The United States perspective. [Diversidad en la profesión bibliotecaria: la perspectiva de Estados Unidos.]**

Anjali Gulati

IFLA Journal 36 (2010) No. 4 pp. 288–293

Este documento tiene por objeto explicar cómo se ha abordado el concepto de diversidad en los estudios profesionales y debate de qué forma se ha entendido y aplicado en el contexto de las bibliotecas comunitarias tribales, públicas, académicas y escolares, así como en las estadísticas sobre diversidad de los bibliotecarios. El documento resalta algunos problemas notorios relativos a la diversidad en las bibliotecas, tales como: dotación de personal; contratación y retención; selección de estudiantes y profesores de color para las bibliotecas escolares; servicios de bibliotecas y ambiente de trabajo. El documento concluye citando algunos retos a los que se enfrentan los bibliotecarios, como la falta de representación de las minorías entre estudiantes y profesores, y formula una serie de recomendaciones para superarlos.

### **Preserving traditional knowledge: Initiatives in India. [Preservación del conocimiento tradicional: iniciativas en India.]**

Rupak Chakravarty

IFLA Journal 36 (2010) No. 4 pp. 294–299

La sabiduría tradicional es un activo de gran valor para cualquier país, ya que desempeña un papel esencial en el progreso de la nación y en la transformación de su sociedad. En este documento se aborda la necesidad de preservar el conocimiento tradicional. El documento describe el papel de la Biblioteca digital de la sabiduría tradicional y sus actividades para preservar el conocimiento médico tradicional en India.

### **Assessing information literacy competency of Information Science and Library Management graduate students of Dhaka University. [Evaluación de las competencias en materia de información de los alumnos de Ciencias de la información y gestión de bibliotecas de la Universidad de Dhaka.]**

Md. Anwarul Islam y Keita Tsuji

IFLA Journal 36 (2010) No. 4 pp. 300–316

El objetivo de este estudio es evaluar las competencias en materia de información de los alumnos de Ciencias de la información y gestión de bibliotecas (ISLM) de la Universidad de Dhaka, Bangladesh, y determinar sus fortalezas y debilidades. En general, se ha demostrado que los alumnos tienen una capacidad limitada en cuanto a comprensión de la información, y que esta cuestión no está contemplada en sentido amplio en el curriculum académico. Este estudio recomienda la incorporación de un programa en materia de información en el curriculum académico, así como de escritura, debate y otros aspectos importantes que aumentan las competencias de los estudiantes para la información.

### **Research output in the field of natural sciences: A bibliometric case study of Jamia Millia Islamia University, New Delhi. [Resultados de una investigación en el ámbito de las Ciencias naturales: un estudio bibliométrico de carácter práctico en la Universidad Jamia Millia Islamia de Nueva Delhi.]**

Shailendra K y Shehbaz Husain Naqvi

IFLA Journal 36 (2010) No. 4 pp. 317–324

Este estudio es un análisis bibliométrico de los resultados de la investigación realizada en la Universidad Jamia Millia Islamia de Nueva Delhi en el ámbito de las Ciencias naturales. Se han analizado un total de 1.313 registros, incluyendo artículos periodísticos (984), ponencias (273) y libros (56). Se han probado la Ley de Bradford y la Ley de Lotka, y se ha determinado su aplicabilidad a los datos.

### **Non-users' evaluation of digital libraries: A survey at the Università degli studi di Milano. [Evaluación de las bibliotecas digitales por parte de personas no usuarias: encuesta realizada en la Università degli studi di Milano.]**

Chiara Consonni

IFLA Journal 36 (2010) No. 4 pp. 325–331

Presenta los resultados de un cuestionario realizado en la Università degli Studi di Milano a personas no usuarias sobre los servicios de las bibliotecas digitales. El público objetivo de la encuesta incluía a los estudiantes y al personal docente y administrativo de la universidad. La investigación se centraba en los “no usuarios fáctico”, es decir, aquellas personas que



utilizaron el servicio una vez pero que decidieron no volver a usarlo. Los resultados demuestran que los no usuarios fáticos, a pesar del uso limitado de las instalaciones de la biblioteca digital, creen que conocen el servicio y lo consideran satisfactorio. Dejaron de utilizarlo por diversas razones, principalmente debido a que ya no lo necesitaban o porque usaban otro servicio. Se han puesto de manifiesto algunos puntos débiles del servicio, en especial su escasa facilidad de uso y la limitación de material en algunas disciplinas. La investigación también revela que el acceso al servicio se realizó por diferentes motivos, entre los que destacan la preparación de tesis, la investigación y el deseo de mantenerse informado, además de los intereses personales. Los resultados confirman el escaso conocimiento de las personas no usuarias y plantean muchas preguntas nuevas y controvertidas que deberían llevar a la comunidad científica a investigar a los no usuarios en mayor profundidad. Este documento ha sido galardonado con el premio IFLA LIS Student Paper Award, 2010.

**Building capacity through the IFLA Building Strong Library Associations programme. [Desarrollo de habilidades a través del Programa para la Creación de Asociaciones de Bibliotecarios Sólidas de IFLA.]**

Fiona Bradley

IFLA Journal 36 (2010) No. 4 pp. 332–334

Una introducción al Programa para la Creación de Asociaciones de Bibliotecarios Sólidas de la Federación Internacional de Asociaciones e Instituciones Bibliotecarias (IFLA). Este programa se implementa a través de proyectos nacionales que incluyen talleres, tutelaje especializado, actividades combinadas en línea y actividades transversales entre programas especialmente diseñadas. Desde 2010 hasta 2012 se llevarán a cabo tres proyectos nacionales al año, uno en África, otro en Asia y Oceanía, y el tercero en Latinoamérica y el Caribe. El programa será evaluado en tres niveles con un enfoque destinado a garantizar la sostenibilidad del programa y de cada proyecto nacional.

## Рефераты статей

**Diversity in librarianship: The United States perspective. [Многообразие в библиотечном деле: проекция на Соединенные Штаты.]**

Анжали Гулати

IFLA Journal 36 (2010) No. 4 pp. 288–293

Статья нацелена на разъяснение того, каким образом концепция многообразия была освещена в профессиональной литературе, как оно [многообразие] понималось и имплементировалось в контексте библиотек родовых общин, публичных библиотек, научных и школьных библиотек, а также представлена статистика по многообразию от библиотечных профессионалов. В статье обращено внимание на некоторые значимые вопросы, касающиеся многообразия в библиотеках, такие как: кадровое обеспечение; наём сотрудников и их удержание; набор “цветных” студентов и преподавателей в библиотечные институты; библиотечные услуги и организационный климат. В заключение указывается на ряд вызовов, стоящих перед библиотечной профессией, таких как малая представленность меньшинств среди студентов и преподавательского состава, а также даются рекомендации по преодолению этих сложностей.

**Preserving traditional knowledge: Initiatives in India. [Сохранение традиционных знаний: инициативы в Индии.]**

Рупак Чакраварти

IFLA Journal 36 (2010) No. 4 pp. 294–299

Традиционные знания являются ценным активом для любой страны, поскольку они играют жизненно важную роль в продвижении нации по пути прогресса и в трансформировании ее общества. В статье обсуждается необходимость сохранения традиционных знаний. В ней описывается роль Цифровой библиотеки традиционных знаний, а также ее деятельность по сохранению традиционных медицинских знаний в Индии.

**Assessing information literacy competency of Information Science and Library Management graduate students of Dhaka University. [Оценка способностей в области информационной грамотности у аспирантов по специальности “Информатика и управление библиотекой” Даккского университета.]**

Мд. Анварул Ислам и Кейта Цуджи

IFLA Journal 36 (2010) No. 4 pp. 300–316

Целью данного исследования является оценка способностей в области информационной грамотности у аспирантов по специальности “Информатика и управление библиотекой” (ISLM) Даккского университета, Бангладеш и определение их сильных и слабых сторон. В целом было обнаружено, что студенты обладают ограниченными навыками и умениями в области информационной грамотности, поскольку эта дисциплина подробно не обсуждается в рамках программы их академического курса. В данном исследовании настоятельно рекомендуется инкорпорировать программу информационной грамотности в учебный план курса, а также предусмотреть больше письма, обсуждений и других соответствующих предметов, которые бы помогли студентам стать более грамотными в информационном плане.

**Research output in the field of natural sciences: A bibliometric case study of Jamia Millia Islamia University, New Delhi. [Результат исследования в области естественных наук: библиометрическое изучение конкретной ситуации в университете Jamia Millia Islamia, Нью-Дели.]**

Шайлендра Кей и Шехбаз Хусейн Накви  
IFLA Journal 36 (2010) No. 4 pp. 317–324

Это исследование представляет собой библиометрический анализ результатов исследования в области естественных наук, произведенного в университете Jamia Millia Islamia, Нью Дели. Было проанализировано в общей сложности 1313 единиц данных в форме журнальных статей (984), докладов конференций (273) и книг (56). Были протестированы закон Брэдфорда и закон Лотки, которые были признаны применимыми к анализу этих данных.

**Non-users' evaluation of digital libraries: A survey at the Università degli studi di Milano. [Оценка цифровых библиотек непользователями: опрос в университете Università degli studi di Milano.]**

Чиара Консонни  
IFLA Journal 36 (2010) No. 4 pp. 325–331

Представлены результаты анкетного опроса лиц, не пользующихся услугами цифровой библиотеки университета Università degli Studi di Milano. Целевую аудиторию для данного опроса составили студенты, профессорско-преподавательский и административно-технический состав данного

университета. Опрос был сфокусирован на “фактических непользователях”, т.е. тех, кто воспользовался этой услугой один раз и затем решил больше ей не пользоваться. Результаты опроса показали, что фактические непользователи, несмотря на ограниченное использование возможностей цифровой библиотеки, считают, что они знакомы с данной услугой и оценивают ее удовлетворительно. Они больше не использовали ее по разным причинам: в основном, потому что они больше в ней не нуждались или пользовались на данный момент другой услугой. Были отмечены некоторые слабые места данной услуги, в частности, недостаточное удобство для пользователей и ограниченное наличие материалов по некоторым дисциплинам. Данное исследование также продемонстрировало, что этой услугой пользовались в силу различных причин, в том числе для подготовки дипломных работ, проведения исследований и поддержания уровня знаний, а также в личных интересах. Результаты опроса подтверждают, насколько мало еще известно о непользователях, и в связи с этим поднимается много новых и дискуссионных вопросов, которые должны побудить научное сообщество к более глубокому изучению этой темы. Статья стала победительницей за 2010 год в номинации за лучшую студенческую работу по определению IFLA LIS.

**Building capacity through the IFLA Building Strong Library Associations programme. [Наращивание потенциала посредством реализации программы ИФЛА “Построение крепких библиотечных ассоциаций”.]**

Фиона Брэдли  
IFLA Journal 36 (2010) No. 4 pp. 332–334

Делается введение в программу Международной Федерации библиотечных ассоциаций и учреждений “Построение крепких библиотечных ассоциаций”. Данная программа внедряется через страновые проекты, включая проведение семинаров, воспитание специалистов, осуществление смешанных видов деятельности в режиме онлайн и специально разработанных межпрограммных видов деятельности. С 2010 по 2012 гг. будет претворяться в жизнь по три страновых проекта в год – по одному в Африке, Азии и Океании, Латинской Америке и странах Карибского бассейна. Программа будет оцениваться на трех уровнях с целью обеспечения ее устойчивости и устойчивости каждого странового проекта.

# IFLA JOURNAL – NOTES FOR CONTRIBUTORS

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IFLA Journal is a peer reviewed journal which publishes original articles, IFLA conference papers, and news of current IFLA activities. Content is selected to reflect the variety of the international information profession, ranging from freedom of access to information, knowledge management, services to the visually impaired and intellectual property.

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## Submission

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