IFLA

Contents

More from Helsinki

Stephen Parker

With two exceptions, the papers in this issue are all edited versions of papers presented during the Helsinki World Library and Information Congress in 2012, and as usual present a variety of professional topics from a variety of countries around the world.

The two exceptions to the 'Helsinki rule' are both from Nigeria: 'Poverty alleviation through strategic public library services in Nigeria in the 21st century: a model', by Bappah Magaji Abubakar, and 'Re-training of librarians for the digital work environment by the Nigerian Library Association', by Ezra Shiloba Gbaje. Africa is also represented in the Helsinki conference paper, 'Libraries supporting national development goals in Namibia', by Ellen Ndeshi Namhila and Ritva Niskala, which provides a practical example of library advocacy at work in a sometimes hostile administrative environment.

A philosophical approach to the nature of librarianship is presented in 'Locating librarianship's identity in its historical roots of professional philosophies: towards a radical new identity for librarians of today (and tomorrow)', by Sara Wingate Gray, while former IFLA President Alex Byrne discusses the problems of 'Uniting the corpus of our collections through visualization' in an era when an increasing proportion of library 'collections' are in digital formats that cannot be easily visualized in the same way as book collections.

Different aspects of academic library services are the subjects of two more papers, 'Academic librarians and research data services: preparation and attitudes', by Carol Tenopir, Robert J. Sandusky, Suzie Allard and Ben Birch, and 'User-centered decision making: a new model for developing academic library services and systems', by Lynn Silipigni Connaway, Donna Lanclos, David White, Alison Le Cornu and Erin M. Hood, while another kind of academic activity is described in 'Form@doct: Designing innovative online tutorials for PhD students in France', by Marie-Laure Malingre, Alexandre Serres, Alain Sainsot and Hervé Le Men.

In addition to the regular News section, this issue also includes a brief outline of the President-elect's Theme: Strong Libraries, Strong Societies, by Sinikka Sipilä, IFLA President-elect 2011–2013.

The next issue of IFLA Journal will present more Helsinki conference papers, including: 'Information infrastructure for user needs: all power to the structured data' by Vincent Boulet, 'Commonwealth of uncertainty: How British and American professional models of library practice have shaped LIS Education in selected former British Colonies and Dominions', by Mary Carroll, Paulette Kerr, Abdullahi I. Musa and Waseem Afzal; 'Leadership in libraries in times of change', by Petra Düren; 'Welcoming, flexible, and state-of-the-art: Approaches to continuous facilities improvement', by Charles Forrest and Sharon L. Bostick; 'UNIMARC - Understanding the past to envision the future' by Rosa Maria Galvão and Maria Inês Cordeiro', 'Techniques to understand the changing needs of library users', by Susan Gibbons; and 'Measuring the public library's societal value: a methodological research program', by Frank Huysmans and Marjolein Oomes. If space permits, one or two other submitted papers will also be included.

Poverty alleviation through strategic public library services in Nigeria in the 21st century: a model

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Abstract

This paper attempts to discuss the strategic roles of public libraries in Nigeria in poverty alleviation programmes in the 21st century. The various poverty alleviation programmes aimed at combating poverty that have been put in place by the successive Federal Governments of Nigeria are brought to light. Despite the poverty reduction schemes introduced by the successive governments, the soaring rate of poverty in the country is still very alarming. Furthermore, the roles of libraries, particularly, the public libraries, have not been realized in that regard. Within this context, the paper examines the strategic roles of the public libraries in reducing the rate of poverty in the country. It concludes by making some recommendations that can assist the Nigerian public libraries to actively play their deserved roles, and/or participate fully in the poverty reduction programmes.

Keywords

public libraries, poverty alleviation, strategic library services, Nigeria

Introduction

Discussions on public libraries at local, national and international levels have occupied a central position within the LIS discipline, over the years, particularly in the face of fundamental advances in technology and changes in the information habits and needs of the users. For that reason, the strengths of public libraries, more than ever before, rest on their ability to fully support the educational, cultural, economic, social, intellectual and recreational needs of their societies, by providing information services that are related to the 21st century to meet the needs of their inhabitants. O'Beirne (2010) has noted that today's public library is very different from the public library of the past.

However, the pace of change in public libraries has been varying in different parts of the globe. For instance, due to low level of infrastructural development, it has been comparatively very slow in developing nations like Nigeria, where public library services still largely follow the traditional patterns. On the other hand, the developed nations have been witnessing tremendous and unprecedented changes and expansion in the nature of their public library services. This development has been triggered by the

advances in information and communications technology (ICT), which has penetrated every sphere and every aspect of life. Therefore, the strategic role of the public libraries in providing knowledge and information services that are widely available to individuals and organizations cannot be overemphasized. Ko et al. (2012) have noted that the goal of a public library is to meet the cultural, educational, and social demands and requests of a local society by providing information services to residents. As such, the administrators of the public libraries are expected to offer a variety of information services to achieve this goal.

The IFLA/UNESCO public library manifesto (1994) states that the public library, the local gateway to knowledge, provides a basic conditions for lifelong learning, independent decision-making and cultural development of the individual and social groups. Public libraries, therefore, provide unrestricted opportunities for

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individuals to get informed and inspired, as well as encouraging the love of reading and providing entertainment for the betterment of the citizenry. Black and Crann (2000), cited in O'Beirne (2010) bluntly captured the comment of a public library user who stated that:

> I cannot speak highly enough of public libraries–they have informed me, entertained me, inspired me and in days when I could not afford to buy a magazine–let alone a book–kept me going. Thinking about it, I would have had to be a millionaire to have bought every book I've read.

The landscape in which public libraries operate is dramatically changing. In other words, the 21st century came with a lot of changes and expectations which the public library is expected to adhere to, particularly in the heat of global competitiveness. In fact, in recent years, the Internet has completely revolutionized the activities of public libraries in the developed world. Thus, public libraries nowadays provide access to the Internet for users who otherwise would not be able to connect to such services as part of their efforts to meet their yearnings and aspirations for information related to the 21st century. Therefore, one of the most important requirements is to develop a re-clarification of the actual and potential role of public libraries in the new landscape.

In a real sense, then, we can view public libraries as those providing information access and other forms of services to the generality of the public without any form of barrier. According to Henderson et al. (2010), a public library is an entity that is established under state enabling laws or regulations to serve a community, district, or region, and that provides at least the following: (1) an organized collection of printed or other library materials, or a combination thereof; (2) paid staff; (3) an established schedule in which services of staff are available to the public; (4) the facilities necessary to support a collection, staff, and schedule; and (5) that is supported in whole or in part with public funds.

Poverty, on the other hand, means low socio-economic status (measured by social or income class), unemployment and low levels of education (Patel and Kleinman, 2003). Also, according to the United Nations (1995), poverty is a condition characterized by severe deprivation of basic human needs, including food, safe drinking water, sanitation facilities, health, shelter, education and information. It depends not only on income but also on access to services.

In today's world, it is therefore essential that public libraries, no matter their placement, should be adequately and fully equipped to fulfill their mission of serving as centers for information resources, providing access to learning, recreation, culture, and opportunities for personal and creative development, as recommended by the IFLA/UNESCO manifesto. To achieve meaningful progress in that regard, there is a real need for the sponsoring authorities of the public libraries, particularly in developing nation like Nigeria, to understand and appreciate their strategic and potential roles in all spheres of societal development.

The rate of poverty in Nigeria is on the increase at an alarming rate. In fact, according to the report of the National Bureau of Statistics (NBS), (2010) cited in Omachonu (2012), the poverty rate in Nigeria has increased to 60.9 percent in 2010, as compared to 54.7 percent in 2004, with almost 100 million people in the country living on less than 1 dollar a day. This, according to Ugoh and Ukpere (2009), can best be described as "inflammable." Similarly, the United Nations Development Programme's (2011) Human Development Index report indicated that Nigeria's human development value for 2011 stands at 0.459 – in the low human development category– positioning the country at 156 out of 187 countries and territories, while life expectancy at birth was only 51.9 years (United Nations Development Programme, 2011).

In the light of the above background, this paper attempts to discuss the strategic role of public libraries in Nigeria in terms of poverty alleviation programmes. It also brings to light the poverty alleviation efforts of the various Nigerian governments.

The Nigerian public library environment

Nigeria is geographically situated on the coast of western Africa. Covering an area of about 924,000 km^2, it is bordered on the north by Niger, on the east by Chad and Cameroon, on the south by the Gulf of Guinea, and on the west by the Republic of Benin. Nigeria's total population stands at about 140 million, with a population growth rate of 2.4 percent, making it the most populous country in Africa, and the largest black nation in the world. Similarly, it is one of the major oil producing/exporting countries in the world. Indeed, the oil sector has greatly influenced the development contour of the nation since 1970.

Nigeria is enormously and richly endowed with abundant human, natural, and agricultural resources spread across its 36 states, as well as its Federal Capital Territory (FCT), Abuja. But, sadly, despite being rich, the country belongs to the league of poorest income group of nations in the world. In other words, the prevalence of poverty in Nigeria is incredibly high, especially in rural communities. The trend in the

soaring rate of poverty in Nigeria can best be described as a case of "poverty in the midst of plenty." This is a result of bad governance, which resulted in poor execution of planned projects, government's deliberate refusal to implement development policies, and large scale corruption that is deep into the fabric of the Nigerian society. The consequences are growing unemployment, rural-urban migration, low productivity, chaotic educational system, growing inflation, very hazardous business environment, soaring rate of disease, and high rate of crime or heightened tension, as well as degrading social status and an unfavorable debt situation. In fact, Nigeria's current unemployment rate stands at 23.9 percent, as against 21.1 percent in 2010 and 19.7 percent in 2009 (National Bureau of Statistics, 2011). Similarly, the majority of the teeming population of Nigerians, especially those in the rural areas where the prevalence of poverty is very high, do not have access to potable drinking water and a sanitary environment. The country ranked third on the global list of countries with poor water supply and sanitation (United Nations Children's Fund and World Health Organization, 2012).

Nigeria has a National Policy on Education (NPE), known as the 6-3-3-4 system of education, which makes provision for 6 years in primary school, 3 years of junior secondary, and another 3 years of senior secondary schooling, as well as 4 years of university education. As of 2008, there were 54,434 primary schools, with a total enrolment of 21,294,517; 18,238 secondary schools, with a total enrolment of 6,625,943; while the total enrolment into adult literacy education in the country stood at 1,129,365. Similarly, in the 2004–2005 academic sessions, the total enrolment into Nigerian universities was 780,001 (National Bureau of Statistics, 2009).

The history of public libraries in Nigeria dates back to 1932, when the first public library was established in Lagos, which started as a subscription library. According to Aguolu (1989), the library was established with a US$6,000 grant from the Carnegie Corporation of New York. According to him, most of the users of the library were then Europeans resident in Lagos. In the same vein, Okiy (1998), as cited by Emojorho (2005), reported that the first public library was a product of the Lagos Book Club and financial aid from the Carnegie Corporation. However, the major landmark in the history of public libraries in Nigeria was the UNESCO seminar on the development of public libraries in Africa, held at University College Ibadan (now University of Ibadan), which according to Aguolu and Aguolu (2002), laid the foundation of modern libraries in the country. As

reported by Opara (2010), the Ibadan seminar took place from 27th July to 21st August 1953, and was a watershed in the annals of LIS in Nigeria. Shortly after the seminar, according to Nwokocha (1998), the first public library legislation was enacted in Nigeria, which set up the Eastern Regional Library Board in 1955.

Presently, there are a number of public libraries in Nigeria, but no current directory or statistics of these libraries is available. Diso (2005) noted that public library services are fairly and widely distributed in Nigeria, with each of the states of the federation having a constituted library board with a network of branches in several local government areas of each state. Public library services are an integral part of societal educational, social, informational, cultural, economic, and recreational processes. How public libraries in Nigeria respond to these processes, in terms of their aptitude to provide relevant information services that are required to make a constructive impact on poverty alleviation, depends upon many factors. These factors include proper funding, adequate staffing, viable accommodation, and sustained provision of information services and resources, particularly ICT resources.

Any poverty eradication programme that is aimed at reducing the menace and threats of poverty in the country, must consider the strategic role of public libraries in enlightening the citizenry. In other words, the public library, being a community information center, has a significant role to play in educating, enlightening, and ensuring the successful implementation of the various poverty alleviation programmes. Reducing poverty to the barest minimum begins with having adequate information about its negative and devastating impact.

Many public libraries in Nigeria are in deplorable condition. A perusal of the literature, particularly in recent years, has indicated that the library and information environment is less than comfortable, because large numbers of public libraries are in stagnant and woeful situations, suffering from chronic underfunding, long years of neglect, and lack of good information resources, services and facilities, as well as inadequate staffing. In fact, the sponsoring authorities of such libraries have turned a blind eye to the development and maintenance of the various public libraries in the country. Nwokocha (1998) has observed that, after several years of public library services in Nigeria, most of their objectives as highlighted above were yet to be fully achieved due to an array of problems, which emanated from administrative neglect by various governments. Thus, the pitiable condition of public library services creates a

problem for their participation in poverty alleviation programmes.

The under-funding situation portrays a gloomy picture to the potential and survival of public libraries in poverty eradication in the country. Okiy (2005) went down memory lane by reporting that in the 1970s, during the era of the oil boom in Nigeria, libraries were generally well-funded. However, this situation changed in the 1980s, when the Nigerian economy started to experience a decline in revenue. She thus noted that of all the different types of libraries in Nigeria, only university libraries have a clearly-defined policy on funding, because they are allocated 10 percent of the recurrent budget of their parent universities, while other types of libraries have no clear funding policy. Lamenting on the same situation, Nwokocha (1998) observed that inadequate funding has been at the root of many problems confronting the Nigerian public library. He further noted that public libraries received meager budgetary allocations from their funding bodies, which have a very discouraging dimension. The existence of poor funding has become manifest in many public libraries in the country, and largely explains the common sight in our public libraries in terms of the inadequacy of new information resources, lack of modern equipment, Internet facilities, computers, CD-ROMs, qualified staff, and creative projects, to mention just a few.

The above circumstances clearly depict the unfortunate situation that bedevils public libraries in Nigeria – even more so when one compares it with the situation in other countries, particularly the advanced countries where public libraries make steady progress in funding. In the United States, for instance, the total expenditure of the over 9,000 public libraries witnessed a steady increase from U$ 8.29 billion in FY 1999 to U$ 10.72 billion in FY 2008, representing an absolute increase of US$ 2.43 billion and a percentage increase of 29.4 percent (American Library Association, 2010; Henderson et al., 2010). Similarly, in Australia, the total expenditure on public libraries has increased from AUS$ 694 million in 2004–2005 to AUS$ 882 million in 2008–2009 (Australian Public Library Statistics, 2010). Certainly, there is a long way to go for the Nigerian public libraries in this regard.

In the area of library and information resources and facilities (i.e. in terms of quantity and quality), the majority of public libraries in Nigeria simply do not have them. Most public libraries have on their shelves outdated and old-fashioned information resources, and in some instances, even non-existing. This regrettable scenario still persists till today. Udeze (2009) reported the disappointing situation in the Lagos State

Library Board, which is the second largest state in the country in terms of population. In that report, he noted that despite the fact that the state government continued to show interest in the running and maintenance of the library, a stark reality there was that a majority of the books on the shelves were outdated and almost moribund. This situation is the same in other public libraries across the country. Similarly, a study of public library development in Lagos State conducted by John-Okeke and Owoeye (2011) further revealed that public libraries in the state were poorly funded and had inadequate staff. Additionally, they had poor collections as well as insufficient numbers of computers and Internet connectivity. Also, mobile library services and extension services were no longer functioning.

The pitiable state of mobile library services, which has been hitherto one of the most important services to the rural communities, where the rate of poverty is extremely high, creates a major problem for the effective participation of the public libraries in poverty alleviation. Most public libraries lack this important service. The rural areas depend mostly on mobile library services, which do not even reach every part of the country (Tawete, 1995 as cited by Adomi, 2000).

The role of professional library associations such as the Nigerian Library Association is always significant to the development of the profession as well as strategic library services. However, the Nigerian Library Association (NLA) has been very dormant, non-assertive, and nonchalant, though very active in organizing yearly conferences that hardly produced meaningful changes in the profession and the status of public libraries. The NLA has failed to make a strong impact on the profession and its members. The resultant effect is that public libraries and the profession in general are marginalized. This state of affairs does not augur well for the provision of strategic public library services and systems. The NLA must rise to the expectations by ensuring that the right things are done.

Poverty alleviation programmes in Nigeria

In response to the need for poverty reduction, several attempts have been made by successive governments to decrease the rate of poverty in Nigeria. In other words, various programmes and policies have been developed and implemented at different times with the aims of liberating the people from the shackles of poverty in the country. According to Ugoh and Ukpere (2009), conscious efforts made by successive governments in Nigeria to cut the rate of poverty in the country date back to the pre-independence era. During that period, the colonial government drew up programmes and strategies and laid out resources

for the first 10-year development plan 1946–1955. The policies were targeted at local processing of raw produce such as groundnuts, palm oil, hides and skin. At independence, the periods between 1962–1968, 1970–1974, 1975–1980 and 1981–1985 were designed by various governments to provide basic infrastructure, diversify the economy, reduce the level of unemployment, and raise the living standard of the people (Ugoh and Ukpere, 2009). However, all these anti-poverty efforts that were developed by successive governments are yet to bring positive changes to the lives of the common people who are targeted.

The roles that public libraries could play in these poverty alleviation programmes cannot be overemphasized. In other words, poverty alleviation programmes can only succeed when the people are duly informed. Therefore, public libraries in Nigeria should develop innovative library-based programmes aimed at addressing, informing, and supporting the poverty eradication programmes in the nation, particularly the current National Poverty Eradication Programme (NAPEP). Such innovative programmes could play a vital role in ensuring that people in the community receive information not only about the anti-poverty programmes, but also about the way and manner in which such programmes affect their lives. The public libraries could do this using approaches such as:

- Organizing cultural events, including the use of film shows, drama presentations, and discussions, mostly using the local languages.
- Organizing literacy days or weeks and reading programmes. This may require sending invitations to local writers. The public library is the best place to organize such activities. The librarian or information worker can assist the patrons by acting as a facilitator in such programmes. This includes providing useful information and making important texts available to encourage people to read, especially those in the rural communities (Hoq, 2012).
- Outreach programmes. This can be achieved through the creation of stands and art displays in public places (especially in the rural communities), conferences, seminars, and workshop and the use of mobile vans, etc. Such programmes can have a positive impact on rural economic and societal development. Stilwell (2011) reported an example from South Africa where the KwaZulu-Natal Public Library used a 'wheelie wagon' containing 500 books to provide services at different points. Nigerian public libraries can emulate such a project.
- Creating special collections for the poverty alleviation programmes to be displayed in the library.

Readers coming into the library should be directed to the collections.
- Rural information centers/township cultural stations should be utilized in the current poverty alleviation programme by the National Poverty Eradication Programme (NAPEP), since the rate of poverty is high in the rural areas. Such a programme can lead to greater participation of the Nigerian public libraries in the anti-poverty programmes. Examples can be taken from China, where their existence was reported by Clarke et al. (2011). Also, according to Hoq (2012), a rural information centre that is run by an able information professional can educate the rural people on how to make the best use of their money and resources, as well as providing information on jobs and ways of getting them.
- Library and information entrepreneurship programmes and schemes. Public libraries in the country should create innovative entrepreneurship programmes with the aim of educating and informing people, especially the rural dwellers, on the need of being entrepreneurial and productive. This could likely minimize the rate of poverty and too much dependence on the government. They should, in addition, serve as centers for entrepreneurship training.

A further review of some of the poverty reduction programmes instituted by different governments is provided below.

Structural Adjustment Programme (SAP)

The Structural Adjustment Programme (SAP) was launched in 1986, with the purpose of ensuring that poverty is reduced to the barest minimum, at the same time improving the financial well-being of the underprivileged. The programme was established by the government with the assistance of the World Bank and the International Monetary Fund. However, according to Obadan (2002), although the structural adjustment had salutary consequences on economic growth, it lacked emphasis on development and heightened socio-economic problems such as income inequality, unequal access to food, shelter, education, health, etc. A summary of some of the anti-poverty programmes that were put in place since 1986 by successive governments is presented in Table 1.

Directorate for Food, Roads and Rural Infrastructure (DFFRI)

The Directorate for Food, Roads and Rural Infrastructure (DFFRI), established in January 1986, was

Table 1. Poverty alleviation programmes by Nigerian governments.

S/No.	Programme Name	Year of Establishment	Type of Government	Target Group
1.	Structural Adjustment Programme (SAP)	1986	Military	Poor People
2.	Directorate for Food, Roads & Rural Infrastructure (DFFRI)	1986	Military	Rural Areas/Roads
3.	National Directorate of Employment	1986	Military	Unemployed Youths
4.	Better Life Programme (BLP)	1987	Military	Rural Women
5.	People's Bank of Nigeria	1989	Military	Underprivileged People in rural and urban areas
6.	Family Support Programme (FSP)	1994	Military	Families in Rural Areas
7.	Family Economic Advancement Programme (FEAP)	1997	Military	Rural Areas
8.	National Poverty Eradication Programme (NAPEP)	2001	Civilian	Rural and Urban Areas

Sources: Ogwumike, 2002; Muhammad, 2010; Ugoh and Ukpere, 2009; Obadan, 2002.

designed to develop rural areas via the construction of feeder roads and the provision of basic social amenities such as shelter, food, potable drinking water, and electricity supply. It is on record that the DFFRI was the most all-inclusive poverty reduction programme of the nation. However, according to the Central Bank of Nigeria Enugu Zone (1998), as cited by Ugoh and Ukpere (2009), DFFRI could not achieve many of its objectives, because the programme was over-ambitious in scope, steeped in corruption, and lacked standards for project coordination in the country.

The National Directorate of Employment (NDE)

The National Directorate of Employment (NDE), established in 1986, was another poverty programme that tried to reduce poverty in the country through combating mass unemployment. The programme exists till today (Ogwumike, 2002). Its programmes include the Vocational Skills Development Programme (VSD), the Small Scale Enterprises Programme (SSE), and the Agricultural Employment Programme, etc. It is on record that the NDE has trained more than 2 million unemployed people and provided business training for not less than 40,000 people in the country (Oyemomi, 2003). However, poor funding and administrative bottlenecks have hampered the activities of the directorate.

Better Life Programme (BLP)

The Better Life Programme (BLP), spearheaded by the wife of a former military Head of State, focused more on the issues affecting rural women. The programme's objectives were:

- to stimulate and motivate women in rural areas towards achieving a better and higher standards of life, as well as sensitizing the general populace to the plight of rural women
- to educate women on simple hygiene, family planning, the importance of childcare and to increase literacy
- to mobilize women for concrete activities towards specific objectives, including seeking leadership roles in all spheres of national life; and
- to raise the social consciousness of women about their rights, as well as social, political and economic responsibilities (Oyeranti and Olayiwola, 2005).

Some of the major activities of the BLP included the establishment of a variety of enlightenment or educational programmes, and the granting of easy credits to rural women in the country.

People's Bank of Nigeria (PBN)

The People's Bank of Nigeria (PBN) was founded in 1990 with the aims of encouraging savings and providing credit activities for the underprivileged members of the society in both the urban and rural areas of the nation (Ogwumike, 2002). Also, by implication, the People's Bank is to serve as an alternative banking institution that provides easy credit to the poor who otherwise would not have access to credit and other banking services at affordable rates (Oyeranti and Olayiwola, 2005).

Family Support Programme (FSP)

This was another poverty scheme that was also established by a former first lady (Mrs. Maryam Abacha). The scheme was established to provide health care delivery, child welfare, youth development and improved nutritional status to families in rural areas (Ugoh and Ukpere, 2009). Although the programme was designed to improve the quality of life of rural dwellers, it was afflicted by a series of malpractices, like the non-supervision and monitoring of loans, and poor loan recovery system (Ugoh and Ukpere, 2009)

Family Economic Advancement Programme (FEAP)

The Family Economic Advancement Programme (FEAP) was established to offer credit for agricultural production and processing; to also support the establishment of small scale cottage industries in both the rural and urban areas of the country. However, just like the FSP, the FEAP also faced a series of challenges relating to lack of proper supervision and high scale corruption; as such, many of its programmes could not be executed.

National Poverty Eradication Programme (NAPEP)

This is the most recently introduced poverty reduction programme in the country. The National Poverty Eradication Programme (NAPEP) was introduced in 2001 with the sole aim of eliminating absolute poverty in the land. It consists of four schemes and programmes, namely:

- The Youth Empowerment Scheme (YES)
- The Rural Infrastructure Development Scheme (RIDS)
- The Social Welfare Services Scheme (SOWESS)
- The National Resources Development and Conservation Scheme (NRDCS) (Bindir, 2002)

In effect, the main mandate of NAPEP as an institution is to monitor and coordinate all poverty eradication efforts, in order to harmonize and ensure better delivery, maximum impact and effective utilization of available resources (Ugoh and Ukpere, 2009).

Despite these poverty reduction strategies, as discussed above, the prevalence of poverty in the country remains very high. In other words, all these anti-poverty measures have recorded abysmal and unsatisfactory outcomes. Many reasons are cited for the failures: they include lack of targeted mechanisms, failure of the programmes to focus on the poor people, programme inconsistencies, inadequate coordination, misplaced priorities, severe budgetary cuts, management and government problems, poor implementation, overextended scope, and, above all, the issue of corruption (Obadan, 2002; Ugoh and Ukpere, 2009; Muhammad, 2010).

Having examined the poverty reduction measures and their discouraging end results, it is therefore crystal clear that further efforts are required in this regard. Thus, the strategic position of public libraries in poverty reduction in the country is arguably of critical importance, particularly in this 21st century. Public libraries have a major role to play in reducing the poverty rate in the country.

Public libraries and poverty alleviation in Nigeria

Given the growing poverty rate in Nigeria and its devastating effects on the citizenry, the crucial and strategic roles of the public libraries in curbing them cannot be overemphasized. Public libraries are essential to every community, because they are regarded as campaigners of education, literacy, relaxation and economic empowerment. Some of the poverty alleviation programmes such as the National Directorate of Employment, the Better Life Programme, and the People's Bank of Nigeria, etc., have made efforts to reduce the menace of poverty in the nation, but have failed to recognize the strategic roles of libraries, particularly the public libraries, which are close to the grassroots in that regard. The public libraries in Nigeria could contribute to poverty alleviation efforts in the following ways:

Instruments for revitalization

Firstly, and foremost, public libraries can serve as instruments for revitalizing the already existing poverty alleviation programmes of the country, because they are instruments for steering change in a society. Public libraries, for instance, can contribute immensely through the provision of information and reference resources, especially, those resources that relate to local interest and prevailing trade of the people, as well as on the various poverty alleviation programmes and schemes of the nation. Information resources like magazines, newspapers and the like that present or provide information on the dangers of poverty, unemployment, information on various opportunities for jobs, and economic empowerment can change the mindset of the inhabitants, and can go a long way in reducing the shackles of poverty in those communities. Similarly, in the rural areas where the literacy rate is very low, the public libraries can be utilized by the government through giving them the

necessary support so that the programmes can be disseminated through film shows and drama presentations. Mobile public libraries can be utilized to reach every nook and cranny of the Nigerian rural communities. This may require resuscitation of the mobile library services.

Motivating people

The public libraries in Nigeria can play an important role, not only in providing the necessary information about the various schemes and poverty alleviation programmes for the poor people, but also in motivating people to benefit from the programmes. Access to micro-credit and markets and finance information, education and health care are essential roles of the public libraries. Regular provision of information on micro-credit, market prices and finance (i.e. selling and buying) can play a significant role in minimizing the rate of poverty, because they could assist the poor people to know the ways and means of receiving various sources of financial support and assistance available to them, which can increase their incomes as well as empowering and strengthening their financial base.

Educating farmers/ agricultural information

Since the rate of poverty in the country is very high in the rural areas, where the majority of the populace are actively engaged in farming, the significance of public libraries in the agricultural sector cannot be overstressed. Agriculture employs more than 60 percent of Nigeria's population and contributes 45 percent to the nation's GDP (Isiah, 2012). The public library of the 21st century can inform and educate the farmers, particularly the peasant farmers, on issues like soil types, annual rainfall, modern farming methods, irrigation farming, cropping patterns and protection, as well as on the different types of fertilizers. Such information will boost their farming activities, as well as assisting in raising their income levels and will certainly reduce the rate of rural poverty in the land. Furthermore, the public libraries can support and give reinforcement to the poverty eradication programmes related to the agricultural sector. For instance, they can fully support the Agricultural Employment Programme of the National Directorate of Employment (NDE) scheme through the above activities, by collecting and making available information materials relating to agriculture and rural infrastructure development to their clients. This could be achieved through joint ventures between the public libraries and agricultural extension workers. A joint cooperation approach may be an effective way for public libraries to participate in poverty alleviation as it relates to the agricultural sector.

Organizing of public lectures and talks

Lectures and talks could be jointly organized by the government in collaboration with the public and community libraries, where experts could be invited and given a chance to discuss issues like the current poverty alleviation programmes and their benefits to the people, employment, income generation or raising as well as self-reliance. Others may include skills acquisition, youth empowerment and soft loans as well as the techniques of establishing small scale cottage industries. Public libraries can spearhead the above programmes, which in turn may draw the attention of the common people towards the poverty eradication programmes and may subsequently lead them to benefit from the schemes.

Serving as training centers

In addition to the above, the public libraries of the 21st century can serve as centers for training the unemployed youths, thereby contributing to one of the four schemes of the current poverty eradication programme of the nation, the NAPEP (Youth Empowerment Scheme), as well as the Vocational Skills Development Programme (VSD) of the National Directorate of Employment (NDE). Public libraries had clear roles to play in the earlier Better Life Programme (BLP), because they were supposed to serve as centers for educating women on simple hygiene, childcare, and increasing the literacy rate of the rural women, which were some of the major objectives of the scheme.

Facilitating literacy and readership promotion campaigns

The public library of the 21st century can facilitate a series of campaigns to increase the literacy rate, e.g. the readership promotion campaigns that are usually organized by the National Library of Nigeria. A strong reading culture and habit can be promoted through the provision of adequate and quality recreational, informational, and educational resources, and could be further enhanced with the provision of training in the use of ICTs. Thus, good literacy and ICT knowledge can lead to better enlightenment and education, as sound education can directly support development and provide a pathway to greater job prospects, and invariably support the poverty alleviation programmes.

Public access to ICTs and Internet facilities

Public libraries are the best places to offer public access to ICTs, and to Internet facilities in particular, to assist job seekers, especially university graduates,

to have access to the information 'expressway.' This could go a long way in enabling them to have wider access to job advertisements, both within and outside the country, and will surely reduce the rate of unemployment in the country. Finally, participating in the poverty eradication programmes could make public libraries more viable to their communities, and will certainly enhance their image in their respective communities, thereby enabling them to reclaim their deserved roles of community information centers.

Conclusion and recommendations

This paper has tried to discuss the strategic roles of the public libraries in the poverty alleviation programmes in Nigeria. It also highlighted the various poverty alleviation programmes developed by successive governments in the country. However, the soaring rate of poverty in the country is very high. In fact, about 100 million people in the country are estimated to be living on less than 1 dollar a day, despite the fact that Nigeria has over the years launched various poverty alleviation programmes aimed at reducing the incidence of poverty in the land. Frustratingly, however, these efforts have not yielded encouraging results, due to many devastating reasons and disappointments. It has also been realized that the roles of the public libraries have not been recognized by the various poverty eradication schemes. The public libraries of the 21st century Nigeria have a crucial role to play in making the programmes more meaningful, if they are to play their desired roles in the poverty alleviation programmes.

Based on what has been presented in this article, the following recommendations are therefore put forward for immediate consideration:

- The country's existing public libraries should be properly funded by their sponsoring authorities, and also there should be a clear cut funding policy for the nation's public libraries. If the government is really serious, the recent literacy campaign launched by the President in December 2010, tagged as Bring Back the Book, is a right step towards that direction, and should serve as a stepping stone towards reviving the nation's public libraries. This should be fully complemented with proper funding of libraries, public libraries in particular.
- The government should fully involve the nation's public libraries in poverty alleviation programmes. Also, more public libraries should be established and properly maintained, especially in the rural areas where the soaring rate of poverty is very high. The country can take examples from Malaysia, where a recent report indicates that one state (Selangor State) has planned to build 20 technologically-enhanced community libraries at the cost of MYR 6 million (about US$ 2 million) in 3 years, in densely populated residential areas of that state.

- The government should equip the various public libraries with modern ICT facilities, and also staff training in the use of ICTs should be further enhanced. This would help in enabling them to provide adequate services related to poverty alleviation programmes, as no meaningful progress can be recorded without ICTs, and the knowledge of using them in this 21st century.
- Since many non-governmental organizations (NGOs) are operating in the country, they should come to the aid of the nation's public libraries through collaborative activities. Thus, it is recommended that the NGOs should be involved in public library activities as partners in progress, since they are involved in various programmes related to poverty reduction, e.g. women and family issues, disease control, social awareness, immunization, etc. This could lead to greater participation of the public libraries in community development programmes.
- Wealthy individuals in the communities where the public libraries operate constitute major stakeholders in the growth and sustainability of these public libraries. Therefore, it is recommended that they should contribute towards the success of public libraries, particularly, in the area of poverty alleviation to complement any efforts made by the government.
- Companies, industries, corporations and financial institutions should all contribute in making the Nigerian public libraries viable, effective and accommodating to all the inhabitants. This may go a long way in enabling them to participate fully in the poverty alleviation programmes, in areas where their services are needed.
- Public library authorities in the country should devise initiatives of generating funds through investments, in order to complement the efforts of the government. This may also help in strengthening their participation in the poverty alleviation programmes of the nation.
- Finally, the NLA should adopt pro-active measures to ensure that the right things are done.

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Uniting the corpus of our collections through visualization

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Abstract
This paper explores the challenges of visualizing digital and physical collections to enable discovery and use with reference to new models for academic and public libraries as well as the particular challenges faced by libraries with great heritage collections such as the State Library of New South Wales. That Library is renowned internationally for its unique collections on Australia and the surrounding region. It and its international peers face the challenge to present their heritage collections, their digitized versions and their contemporary print, media and born digital materials to as a discoverable corpus for researchers, students and the public.

Keywords
library collections, digital collections, visualization of collections

The physical corpus

At least since the fabled Great Library of Alexandria, libraries have long been assessed and compared in terms of their collections: how big, how old, how many incunables, how extensive, how specialist, and so on. Applying these Alexandrian measures, we view in awe the vastness of the holdings of the Library of Congress or the British Library, the depth of the Vatican Library, and the particularity of the Süleymaniye Library of Islamic manuscripts in Istanbul. Our mental images extend from the beauty of the famous Benedictine Library at Melk in Austria to the serried rows of bookshelves in a great university library or behind the scenes in a major depository library such as the Deutsche Nationalbibliothek.

At the State Library of New South Wales, the premier library for the colonial history of Australia and its region, such measures are impressive. While those familiar with the library will immediately think of the books surrounding the grand Mitchell Library Reading Room, behind the scenes there are many stack floors and an external store, 25 km away. Our collections include:

- 5.5 million items
- 1.1 million photographs
- 11.2 linear km of manuscripts
- 234,000 prints, drawings, paintings and maps
- 114,000 architectural plans
- talking books, postage stamps, coins and books
- assessed value of AUD 2.142 billion
- items significant to Australia's history, including 9 of the 11 known First Fleet journals and Joseph Banks' *Endeavour* journal
- the first book ever printed in Australia (NSW General Standing Orders, 1802) and the first Australian newspaper (*Sydney Gazette and New South Wales Advertiser*, 1803)
- the death mask, hat, pipe and pen of Henry Lawson, a major Australian writer.

Laid end to end our shelves would stretch 120 km from the Library in the city centre to Mount Victoria, the pass in the mountains which it took the early colonists 25 years to cross. The collections grow by some 2 km a year, two lengths of the Sydney Harbour Bridge. Housing collections of that size and growth rate presents a continuing challenge, one we share with many other great libraries – and, of course, our GLAM friends in galleries, archives and museums. To better store our collections, preferably on site, we are considering the use of a dense automated storage and retrieval system, emulating the University

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of Chicago among others, in addition to our use of Compactus in staff-only stack areas.

Comprehending such extensive and varied collections raises the question of how we and our clients can visualize them. How can we mentally 'see' collections spread between open access shelving, traditional stacks, dense storage and automated systems? And, how can we meaningfully comprehend their cultural and informational content across the myriad formats and topics represented in extensive collections?

The emerging digital corpus

Our challenge does not stop with our physical collections. As we digitize our heritage collections at the State Library of New South Wales, we will create some 12 million images or page views in addition to the approximately 500,000 we have at present. And, as we begin to capture born digital material relevant to our jurisdiction in the State of New South Wales, we will build up enormous data files which we will need to preserve indefinitely just as we preserve the paper, audiovisual, pictorial and other items which we have traditionally curated.

That digitalia is by its nature intangible. It consists of bits and bytes stored on transitory media such as CD-ROMs, tape or disc drives, or, increasingly, in the cloud. While digital items are real and able to be viewed, manipulated, repurposed, they do not have a comprehensible physical existence which can be seen or touched. In fact, they frequently can be viewed only when the output is generated from stored data and can change momentarily as we experience computer games, digital artworks and other temporary media.

Visualizing an aggregation of intangible and evanescent items as a collection is challenging and presenting them together with our physical holdings as an integrated corpus of cultural and informational materials stretches our imagination. But, as our digital collections grow, we are misportraying our collections if we do not assist our clients to visualize them in meaningful ways and in ways which join them to our physical collections to form a united corpus.

The challenge of visualizing collections

So, how might we and our clients visualize those collections? And, even more vitally in this digital age, how can we bring together the tangible and the intangible to enable our collections to be visualized coherently?

These questions go to the heart of our understanding of 21st century libraries as collecting institutions. They are integral to the challenge of moving public identification of the library/bibliothèque (bibliotek/ biblioteca/bibliotheek/ . . .) beyond the physicality of the book/liber/βιβλίο (biblio). Solving the question of how we and they understand and visualize 'collection' has become central to our conceptualization of contemporary and future libraries.

There are many contemporary arguments in favour of maintaining libraries. They include the library as the 'living room of the community' (Haskell 2010 for example), as a 'third space' which is welcoming and available to all (Bauer 2009 for example), as a 'learning commons' which facilitates interaction and both collaborative and individual study (Holmesglen 2009 for example). All are valid and their emergence testifies to the strength and adaptability of the idea of the library. But access to information and the preservation and transmission of culture must remain central. Without those core purposes, the library becomes just another space. A library may be without books but it cannot be a library without being a vehicle for transmitting knowledge. It is therefore crucial that we develop ways of describing and visualizing the body of knowledge that a particular library transmits, in short, its collection.

That collection might consist of items of enduring value which would never be discarded, as in the heritage collections of a library like the State Library of NSW. It might include items which will be held only as long as they are current, as in the reference tools of a special library. And they might include materials held only while they are of interest to and used by clients as in the regularly refreshed collections of a public library. The items might be in physical formats or digital. Some might be accessed by subscription to ejournals or aggregations or on a pay-as-you-go basis as ebooks often are, changing as vendors add or subtract content and with access limited by licensing conditions. Regardless of these considerations, the collection remains a collection in that is intentionally created. It is the processes of selection – and de-selection – coupled with organization which make a collection.

The idea of collection has thus expanded beyond the narrowly defined and easily visualized arrangement of volumes or other items on shelves to encompass materials that are neither tangible nor able to be seen and which may be ephemeral. However, if we are to understand them as elements of the resources, the collection, which we offer to our clients, then we should be able to visualize them as a collection.

Traditional modes of visualizing collections

Leaving aside earlier arrangements of clay tablets and papyri, and the particular needs of manuscript,

numismatic and other special collections, the most immediate way of visualizing a library collection is in an arrangement on bookshelves, whether the elegant shelves of Melk or Trinity College in Dublin or the utilitarian steel shelving of contemporary university and public libraries. Offering strong mental images, this physical arrangement is usually shaped by classification or other ordering systems to approximately collocate items on related topics. It supports the much prized practice of browsing along the shelves to instantaneously judge the usefulness of items and to make serendipitous discoveries. Even though a moment's thought exposes the weaknesses of browsing – not held, on loan, in use, missing, online – the practice is very popular and its loss through moving collections to closed access raises vociferous objections (Smith 2011 for example).

With very large, dispersed collections and closed stacks, comprehending collections as shelf arrangements breaks down, as the collections cannot be easily viewed or browsed as a whole even if it would be theoretically possible to walk the stacks. With an automated storage and retrieval system it becomes impossible to enter and view the items sitting in the system's totes even though the items are tangible and can be seen and handled when retrieved from the system. With digital materials that becomes impossible, the items only becoming viewable when presented on screen, printed or converted to an audible or other format. Visualization, in the narrow sense of 'being able to be seen with one's eyes', to stand back and 'see' the collection as one can with the great wall of books in the Library at Delft Technical University or the dramatic King's Library in the British Library, thus becomes impossible.

We must turn to other modes of visualizing collections. Moving beyond simple arrangement on shelves, the most fundamental way in which we can visualize a collection is via bibliographic description. The sum of the bibliographic records and holdings statements offers an image of the collection which can readily include items sitting in stacks, remote locations, closed stores, automated library retrieval systems or even digital materials in the cloud. Bibliographic visualization can be via an inventory in accession order, a shelf list in classification order, author-title listings, sorted by format or age, highlighted by popularity, or in any other way that the discovery system will support. It is limited only by the metadata which is available and the capabilities of the system to exploit it.

Bibliographic visualization, however, suffers from a fundamental flaw: it substitutes an artefact, the bibliographic record, for the desired collection item. That record is a tightly defined construct which palely reflects some key characteristics of the item. Bibliographic records can conjoin items irrespective of format so that ejournals can be grouped with ebooks, printed books, maps, compact discs, etc., but they offer only very limited glimpses of the items. For example, although a standard MARC record may include spine height, it does not convey the physicality of a book: its mass, colour, texture, smell, the quality of its paper, its typography, its binding. Nor does a record attempt to convey the ideas in an item and, far less, to evaluate their quality. The record aims simply to provide sufficient information to enable discovery and a preliminary assessment of relevance and usefulness.

A catalogue of bibliographic records can represent a collection, and a union catalogue such as Libraries Australia or WorldCat can represent the intersection of many collections and can bring together holdings irrespective of format so that digital and physical coexist. They can thus enable us to visualize the collection or collections holistically but only to the extent that the necessarily limited metadata will permit. They can support browsing of the collection via lists of the bibliographic artefacts sorted in various ways but they fail to convey the richness of the collections because of the inherent limitations of those artefacts. Although the tools are powerful and strongly support discovery and the evaluation of items, they ignore the sensory aspects of assessing collections, the ways in which we bring our eyes and other senses to assist us in navigating physical collections, assessing the relevance of collection areas to our interests, evaluating the items in those areas and surprising ourselves through serendipity.

Many attempts are being made to overcome the inherent limitations of catalogue based discovery and visualization. The inclusion of thumbnail images of book covers in catalogues is now almost commonplace. The image of the cover recalls the appearance of the book and, to some extent, evokes its physicality. Icons derived from logos, titles or in other ways can be used for digital items so that they too have a concrete presence during discovery. Faced with the challenge of representing the immaterial data files which make up ebooks as attractive titles for readers, the suppliers of ebooks and ebook readers have adopted imagery that evokes the physicality of libraries. The Kindle Fire for example, displays its holdings via an image of a bookshelf (http://www.pdftoepubmac.com/resources/kindle-fire-review.html). The iPad's virtual bookshelf to display downloaded ebooks has a timber appearance which reminds us of traditional bookcases.

These approaches help us to give substance to the items we discover and thus to comprehend them as elements of collections.

Web 2.0 to the rescue

Other methods of visualizing collections have emerged from Web 2.0 and the rapid adoption of social media. Many map books, music and sometimes other materials can appear as collections constructed socially by their users. LibraryThing (http://www.librarything.com), for example, claims to be a community of 1,500,000 booklovers which "connects you to people who read what you do" and enables you to "Catalog your books from Amazon, the Library of Congress and 690 other world libraries ... Find people with eerily similar tastes... Find new books to read... ". Similarly, Shelfari (http://www.shelfari.com) from Amazon.com is promoted as "a community-powered encyclopedia for book lovers" to "Create a virtual bookshelf, discover new books, connect with friends and learn more about your favorite books – all for free". At the discovery level it presents the books with a thumbnail of the cover and a brief synopsis and enables them to be sorted in various ways. Users can then create their own virtual bookshelves of read and yet-to-be-read books. Currently in abeyance, zoomii.com from Canada offered a powerful way of selecting books online via Amazon (Thiessen 2012). Users could zoom from the individual book to collections of thousands to visualize collections at various levels of aggregation. Other sites offering similar functionality include Shelfluv (http://www.shelfluv.com) and Picclick (http://picclick.com/Books). Goodreads (http://www.goodreads.com) offers recommendations based on members' associations between books. Although yet to be extended to whole library collections, some of these capabilities are being built into contemporary library catalogue discovery layers.

More visual approaches to discovery include Picclick which offers its results as a basic display of thumbnail images but, disappointingly, it can be searched only by keyword, not visually. Liveplasma (http://www.liveplasma.com) has a basic search interface but, interestingly, shows books, movies or music as items within a web of associations so James Joyce's *Ulysses* is linked to *Dubliners*, *Finnegan's Wake* and a biography of Joyce, but also Blake's *Songs of Innocence and Experience*. This connections-oriented technology prototypes a powerful method for understanding collections as multidimensional webs of associations. Thus, for items held by the State Library of New South Wales, we can see that images of the breadfruit plant are linked to maps of the island of Timor via Bligh's logbook which records his amazing feat of navigation after being abandoned at sea in a longboat with a few loyal shipmates. The logbook in turn links to newspaper reports of the recent floods in Brisbane through his descendant, Anna Bligh, who was the Premier of Queensland at that time and so on and on. This connections-based approach offers the potential to unite the corpus of collections through the multilayered associations between the elements of the collections.

Visualization beyond the catalogue

More adventurous and artistic approaches to visualizing collections include Chris Gaul's *Book babble* (http://www.chrisgaul.net/utslibrary/prototypes/book-babble) which gives voice to the words in books on shelves by using RFID and Google Booksearch coupled with text to speech technology. It is a very powerful work which strongly conveys that libraries are houses of stories which individuals hear in their own ways.

Alicia Martin's installation at Madrid's Casa de America startles the visitor with an avalanche of books pouring from a window of the institution (http://cubeme.com/blog/2012/03/19/alicia-martins-biografias-installation). One of three in her Biografias series, it presents books as a torrent of ideas and lives. Bronia Sawyer's book sculptures are more delicate and intricate (http://www.thisiscolossal.com/2011/06/book-sculptures-by-bronia-sawyer). *Recycled Library: Altered books* is a travelling exhibition tracing a history of altered books in Australia through the work of 17 artists including books presented as sculptures, wall-based collages, artists' books, and photographs (http://www.sl.nsw.gov.au/events/index.html). Other re-presentations of books include their refashioning as notebooks, furniture and building features.

These and other artistic interpretations of library collections give us pause. How might we more imaginatively effectively enable our clients to visualize our collections and the information and ideas they convey?

Conclusion

The varied approaches to visualizing collections and their elements – books, journals, eresources, ephemera, realia, etc – extend from the traditional images of serried shelves to the surprises of conceptual art. They employ the metadata we apply to bibliographic records and the powerful capabilities of social media. By applying them imaginatively we can unite the

corpus of our collections, digital and physical, permanent and ephemeral and however and wherever stored.

At the State Library of New South Wales, we face enormous challenges to both expose our collections and to assist our clients to perceive the connections within them. We have nearly completed a very large project to generate erecords for all of our holdings so as to enable discovery. We are vastly expanding our drive to digitize our valuable heritage materials. We are working to better house the physical collections in dense storage and, hopefully, an automated system. We have significantly expanded our digital resources which we deliver statewide and we are working to increase our capture of born digital materials. We have started to explore the methods – including artists' ideas – that will enable us to unite this large and culturally valuable corpus.

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User-centered decision making: a new model for developing academic library services and systems

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Abstract

This longitudinal study tracks US and UK participants' shifts in their motivations and forms of engagement with technology and information as they transition between four educational stages. The quantitative and qualitative methods, including ethnographic methods that devote individual attention to the subjects, yield a very rich data set enabling multiple methods of analysis. Instead of reporting general information-seeking habits and technology use, this study explores how the subjects get their information based on the context and situation of their needs during an extended period of time, identifying if and how their behaviors change.

Introduction

There are many different ways to engage in the information environment making physical and digital libraries one of many options available to the information seeker. Library resources often are not the first choice of the academic community, who often choose the more convenient, easier to use open-access sources (Beetham, McGill, and Littlejohn 2009; Centre for Information Behaviour and the Evaluation of Research [CIBER] 2008; Connaway and Dickey 2010; Warwick, Galina, Terras, Huntington, and Pappa 2008). This could be attributed to the fact that resources used to be scarce, making attention abundant. However, attention currently is scarce because resources are abundant (Dempsey 2009, 2010). This means that "library users now have many opportunities to meet their information needs, and they have many demands on their attention.

No single site is the sole focus of attention and convenience is important" (Dempsey 2010).

Connaway, Dickey, and Radford (2011) identified convenience as the number one factor for individuals selecting a service or system to find information. To make it more difficult, convenience is often determined by the situation and context of the specific information need.

In order to develop library systems and services that will meet the varied needs and situations of today's information seekers, it is necessary to identify how, why, and under what circumstances individuals use the various available systems and services.

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Objectives and research questions

In an attempt to identify engagement with technology and information, the Digital Visitors and Residents (V&R) study involves working with users during a 3-year period, and tracking the shifts in their motivations and forms of engagement as they transition between four identified educational stages – Emerging (Late stage secondary school – first year undergraduate); Establishing (Second/third year undergraduate); Embedding (Postgraduates, PhD students); and Experienced (Scholars). It is based on the V&R framework proposed by White and Le Cornu (2011) as a method of contextualizing participants' motivations to engage with the digital environment.

The study is based on the following key research questions:

- What are the most significant factors for novice and experienced researchers in choosing their modes of engagement with the information environment?
- Do individuals develop personal engagement strategies which evolve over time and for specific needs and goals, or are the educational contexts (or, in the context of this study, "educational stages") the primary influence on their engagement strategies?
- Are modes of engagement shifting over the course of time, influenced by emergent web culture and the availability of "new" ways to engage, or are the underlying trends and motivations relatively static within particular educational stages?

Methodology and data collection techniques

The study is comprised of four phases.

- Phase 1: recruited and interviewed 30 individuals in the Emerging educational stage: 15 from the US and 15 from the UK. Eleven were male, 19 female. See Figure 1. Since the participants mostly were drawn from the last year of secondary/high school and first year of university, the majority of the students were aged 18 and 19, but there was a small sample of younger (17) and older (34, 36 and 57) interviewees. See Figure 2.
- Phase 2: recruited and interviewed 30 individuals from the Establishing (second/third year undergraduate), Embedding (postgraduates, PhD students), and Experienced (Scholars) stages: 5 from each of the three stages from both the US and the UK. Fourteen of the Phase 1 participants agreed to submit a monthly diary for 3 months during the summer of 2011 (8 US and 6 UK). The US participants were more faithful than the UK participants in submitting
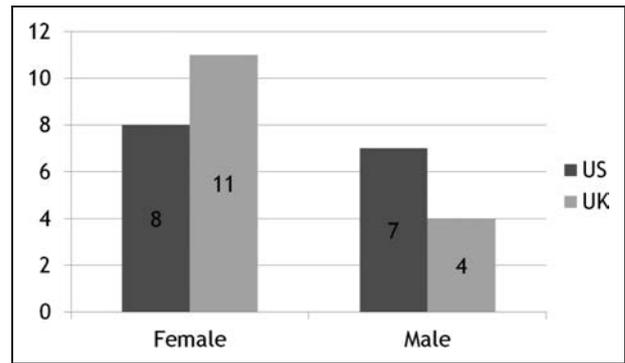
Figure 1. US vs. UK Participant.
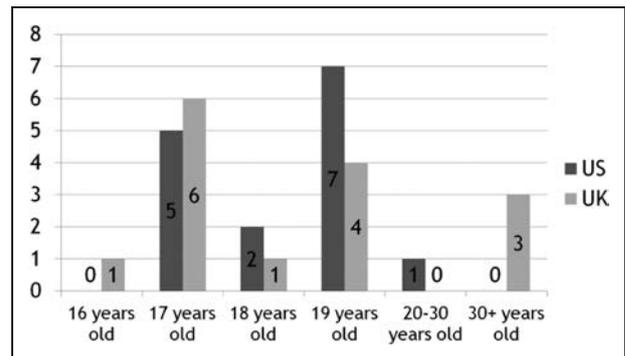
Figure 2. US vs. UK Participant Ages.

the diaries. At the end of Phase 1, there were 7 complete sets of diaries, including videos from one US participant from the Establishing educational stage. Several participants submitted intermittent monthly diaries, while others have failed to submit diaries. Although a thorough analysis of the diaries has not been completed, the team has begun to discuss whether they have been as effective a way as anticipated. The researchers are discussing several options in lieu of the diaries, which may include individual monthly conversations or IM sessions with participants or video submissions.

- Phase 3 (planned for May 2011 – May 2013): test the interview and diary results with an in-depth survey of 50 participants from each of the four educational stages (total of 400 participants – 200 each from the UK and US). Code, analyze, and compare data from the 4 educational stages to refine the emerging findings and explore possible trends across larger groupings, such as the stages themselves, discipline, and socioeconomic status.
- Phase 4: (planned for January 2013–May 2013): interview a second group of 6 students (3 students from each of the two types of institutions from both the US and UK) in the Emerging stage. This will help to determine if methods of engagement are changing over time as well as through the educational stages.

Table 1. US vs. UK Participant University Majors.

US (9 of 16)	UK (7 of 16)
5 Engineering	3 Teaching
1 Political Science	1 Chemical Biology
1 Pre-Business	1 Chemistry
2 Undeclared	1 History
	1 Languages

In the US the project worked in close partnership with the University of North Carolina, Charlotte (UNCC) to recruit participants, from different socio-economic groups from both private and public secondary schools as well as from the university. In the UK participants were drawn from Oxford Brooks University, Warwick University, and secondary schools in Oxford and Leicester. It was a purposive sample with the assumption that the students and scholars at these institutions were typical of other institutions (Connaway and Powell 2010). Although the subjects were a convenience sample (using contacts to connect the researchers with individuals within the 4 educational phases) and snowball sampling with participants recruiting their colleagues who fit the demographics of the 4 educational phases (Connaway and Powell 2010), they deliberately were selected to represent US and UK participants from various cultural, socio-economic, and disciplinary backgrounds. See Table 1 for the subjects' disciplinary backgrounds.

Several methods of data collection are being utilized in this study: semi-structured interviews, diaries, and an online survey. The multi-method design enables triangulation, which provides a cross examination of the data analysis and results. The quantitative and qualitative methods, including ethnographic methods that devote individual attention to the subjects, yield a very rich data set enabling multiple methods of analysis.

Interviews were selected as a technique of collecting data because they allow the interviewee to take time to provide thoughtful answers and for the interviewer to probe, follow up, and ask more focused questions. "It is generally believed that the interview is better at revealing information that is complex or emotionally laden" (Connaway and Powell 2010: 172).

A set of questions was developed for the individual semi-structured interviews. The same questions were asked of all participants. These questions were developed based on the literature and prior research and addressed the participants' needs and behaviors in both personal and academic situations and contexts. See Appendix A.

Because this study is longitudinal, there needed to be follow-up with research subjects after the initial interview. Once individuals consented to be interviewed, researchers in the project asked them if they would also be interested in keeping research diaries, wherein they detailed their information-seeking behaviors month-to-month. The collection of such diaries was inspired in part by Carol Kuhlthau's (2003) work using self-reported written records from high school students. Such documents can potentially provide great depth and detail, but as Connaway and Powell (2010: 222) caution,

"Among their obvious disadvantages are the tendency to reveal only what the participants choose to share with the researcher and the tendency to be incomplete (due to factors such as time, stress, or shame) on those points of extreme difficulty which are often most crucial to the researcher. To minimize these weaknesses, self-reported documents are often used in careful conjunction with other data-gathering techniques."

These diaries are not stand-alone, but are designed to provide time-depth as well as additional detail on the behaviors described by interviewees during Phases 1 and 2 of the project.

The diaries are a form of ethnographic data collection technique. The goal of ethnography is to establish rapport with target communities, via a flexible tool-kit of methods including participant observation, structured and unstructured interviews, reliance on selected research participants as "key informants," and keeping diaries. The analytical intellectual work of ethnography involves being able to engage in a particular way of seeing (Wolcott 2008) that is informed by the ethnographer's immersion in the reality of other people's existence. Such qualitative data must be approached and interpreted in a way that recognizes and retains this richness (Connaway and Powell 2010).

Interviewees were given a choice as to which format they wanted to use in submitting their monthly information diaries: email, follow-up face-to-face interview, blog, phone call, or video. Initially, nearly all of the diarists chose to submit via email messages (possibly because email was characterized as "formal" communication, and all of the Phase 1 diarists were in the Emerging phase). In Phase 2, the researchers provided a Google doc form to make diary submission easier (see Appendix B), and they also started to get video-diary submissions via Vimeo from at least one participant. The diaries are a form of event sampling, which can focus participant attention on those areas which most interest researchers. Connaway and Powell (2010) point out that instruments (like diaries) that are

intended to get people to describe what has just happened to them may be affected by distortions of memory and retrospection. They recommend that the question under review "center on discrete, defined events or moments so that such recording effort becomes reasonable and recall efforts are relatively straightforward" (Connaway and Powell 2010: 222).

A codebook for analyzing the interview transcripts and diaries was developed. The codebook emerged from the themes identified in the interview transcripts. Content analysis was used to tally mentions of the specific themes identified in the codebook. All five of the researchers coded two of the same interview transcripts (1 US and 1 UK) to calculate inter-coder reliability. The US transcript received a Kappa score of 0.63 (98 percent agreement), while the UK transcript received a Kappa score of 0.64 (97.78 percent agreement).[1] The researchers then discussed any differences to reach agreement and modified the codebook to better reflect the themes emerging from the interview transcripts. All of the interview transcripts and diaries from Phases 1 and 2 were coded in NVivo[2] for further analysis.

The questionnaire is another technique or instrument for collecting survey data from a large number of respondents in a relatively short period of time (Connaway and Powell 2010). In the online survey in Phase 3, the participants will be asked questions derived from the collection and analysis of data from the semi-structured interviews and diaries during the first two phases of the project. Since the longitudinal study sample is small, the online survey is a way to involve more participants to validate the results of the analysis of the semi-structured interviews and diaries.

Emerging findings

The preliminary analysis of the Emerging educational stage semi-structured interviews data suggest

- learners' use of technology for both their academic and personal lives can be mapped against the concepts of V&R, where each is a mode of behavior, not necessarily a kind of individual. The data have revealed particular characteristics of V&R modes of behavior:
  - Residents: significant online presence and usage; high level of collaborative activity online; contributions to the online environment in the form of uploading materials, photos, videos; high dependence on a mobile device (smart phone, laptop, etc.); more than 10 hours a week spent online;
  - Visitors: functional use of technology, often linked to formal need (such as use of software for specific coursework, or organising meetings through email contact); less visible/more passive online presence, more likely to favour face- to- face interactions (even as they use the internet to organize/schedule those interactions); fewer than 6 hours spent online a week;
- there are a number of "covert" online study habits. For example, Wikipedia is widely used but almost always with a sense of guilt or an eagerness to convey awareness of its "unreliability;" there is an assumption by students that teachers and lecturers value the authenticity of paper-based books rather than information found online through a browser, such as Google. The data also indicate that this assumption is unfounded;
- some changes are made when transitioning from one stage of academic life to another. For example, one interviewee cleared his Facebook site of his previous high school friends when he went to University, where he replaced them with new contacts; and
- a number of interviewees spoke about the way they evaluated information and sites from the internet. A typical way of doing this was to judge sites by their popularity (as shown by their placement in the Google results list), i.e., popular = correct.

The V&R theory has developed over a period of years, finding formal expression in a recent publication by White and Le Cornu (2011). The paper suggests the following characteristics.

Visitors	Residents
See web as untidy garden tool shed	See web as place (park, building) where clusters of friends and colleagues meet
Defined goal or task	Live out a proportion of their life online
Select most appropriate tool for task	Distinction between online and offline increasingly blurred
Need to see concrete benefit from use of platform	Sense of belonging to a community
No persistent online profile	Have a profile in social networking platforms
Anonymous	Comfortable expressing their identity using SN platforms

(continued)

Visitors	Residents
Actively reject creation of digital identity	Web is a place to express opinions, to form and extend relationships, maintain and develop a digital identity
Caution: identity theft, privacy	Aspect of their persona remains once logged off
Sense that online social networking is banal and egotistical	See web as networks or clusters of individuals who generate content
Will use technology to maintain relationships	No clear distinction between concepts of persona and content
Web offers set of tools to deliver or manipulate content (including conversations)	Popularity as one important measure of reliability
Tendency to respect (and seek out) authoritative sources	
Thinking takes place offline	
Users, not members, of the web	
See no value of belonging online	

During the past year the researchers have been able to add characteristics which seem to accompany or elucidate each of the V&R approaches, as outlined below.

Visitors	**Residents**
Unseen	Visible
Instrumental	Networked
Functional	Communicative
Individual	Communal

Convenience is a major factor in the decisions made by students in the Emerging educational stage. This is similar to findings of Connaway, Dickey, and Radford (2011), in which convenience was the primary factor in choosing or getting information. Convenience was determined by the specific context or situation, so the solution students identified as "convenient" did not always look the same.

Analysis of the diaries is just beginning. However, they appear to confirm tendencies identified in the interviews that participants look for convenient digital sources first and use a wide variety of digital sources in both their academic and everyday lives. Convenience and authority are not always mutually exclusive in the data set. Some of the student participants choose the most convenient option out of a set of "legitimate" sources (those they have been directed to by their tutors or by library staff). It also is the case that students were generally positive about syllabus-based websites that had been recommended to them by tutors or were being used directly as part of the curriculum.

Convenience may be why the data indicate that Google and Wikipedia are the most popular search engine and information source respectively. While much of the discussion below specifically refers to Google and/or Wikipedia, these are exemplars of a search engine, and a form of crowd-sourced[3] information.

Almost without exception, the participants use Google as a starting point to seek information when they do not already know much about a topic. Many go no further, and it was not uncommon for them simply to accept the first Google site listed.

> I always stick with the first thing that comes up on Google because I think that's the most popular site which means that's the most correct. (USS1)[4]
>
> Go to Google first thing. I mean, it's so easy; internet, Google, type in book about or, you know, type in the author and the title and see if it comes up. (USU4)

Wikipedia would often be one of the top results returned by Google:

> My friends and I wanted to know the history of bloody Mary. I searched "the history of bloody Mary" in the Google search box and the first website was Wikipedia. (USU7)

Google's "convenience" had other effects, since it presented students with a huge number of potential avenues to pursue. Faced with the challenges of available time and evaluative skills, a number of interviewees, when asked about what would be an "ideal" way to seek information, expressed a deep desire for an easier and more reliable way to ascertain quickly what is "right" and "wrong": in other words, to validate efficiently and effectively. There was a desire amongst participants for Google search and similar services to be more accurate and always to return a "correct" answer at the required academic level and length. In essence, many students were hoping that technology would evolve to become capable of returning the perfect answer and that they would not have to critically evaluate. This notion is very much in tension with academic notions of what it means to "learn" and how this differs from simply providing a "correct" answer.

> Like at first it was just Google and just research papers. And then, I don't have all the time, I just want a direct answer, I don't want to read about everyone's problems and symptoms. (USU2)

> Well I'd probably be like running like something like magic laptop, that had all the answers to the world. I could just punch in, that would be amazing. (USU2)

The web itself and all the information available on it may be branded as "suspect" unless created and managed by a trusted source. In the case of our Emerging interviewees, trusted sources were generally specifically-designed discipline and exam sites, together with reputable and well-known sites such as that of the BBC, and specialist sites such as those of a university.

One of the US participants in the Emerging educational stage discussed that his tutor thought that Wikipedia was "too convenient."

> The problem with Wikipedia is it's too easy. You can go to Wikipedia, you can get an answer, you don't actually learn anything, you just get an answer. Whereas if you have to do the rest of the research and, especially, when the reason you have to have three sources, even though the three sources may have the same sets of information, they may have different analysis of it, and they may have somewhat conflicting information, or information that appears to be conflicting until you do more research, and that's how you come to the understanding. (USU6)

The student thinks that the reason his lecturer doesn't like Wikipedia is that the convenience of Wikipedia reduces students' ability to conduct other important academic searching and evaluation activities. US participants, in particular, seemed to consider Wikipedia at worst as invalid, and at best as a suspect source of information. Some students believe that their instructors think that Wikipedia is untrustworthy because it is crowd-sourced.

There is evidence to suggest that on the whole Wikipedia is a high quality resource[5] and useful for what has been described as "presearch."[6] For many students in the Emerging educational stage the academic level of Wikipedia seems appropriate. It is frequently used for school and assessment purposes and provides the student interviewees not only with useful factual information, but also with an initial introduction to a topic, together with further references.

> Probably not the best, but I think it's the simplest and easiest way to get going. So if I needed to produce a much more detailed and developed essay I would probably explore further on the internet. (UKS1– addressing using Wikipedia to start)

The data suggest something similar to a "learning black market" (or "grey" market) as students make regular use of Wikipedia but are often uncomfortable about revealing this to their teachers.[7] One US interviewee expressed bluntly what their reaction would be.

> They don't fail you but you get ridiculed in front of everyone for sourcing Wikipedia. (USS3)

Some participants used the references cited in a Wikipedia article, without citing the article itself, as a way of taking advantage of the online encyclopaedia without mentioning it directly, and some teachers seemed to authorize their students' use of Wikipedia in this way. However, it needs to be further investigated whether students' perceptions that instructors' disregard Wikipedia and similar sites is encouraging students to hide their successful and often sophisticated approaches towards information gathering using non-traditional online sources.

The ways in which sources such as Wikipedia and search engines such as Google are used could be taken into account as a part of students' information-seeking approaches. Librarians could consider how to advise students on how to position these types of information sources and tools within larger information-seeking strategies, which include more traditional sources. Those who are certain they have identified inaccuracies in Wikipedia articles (or in similar sites) could be encouraged to correct them to develop editorial skills and a part of the process of becoming "legitimate participants" in the generation of knowledge online.[8] It also will develop their realization that knowledge is not (or no longer) a fixed, black-and-white, right-or-wrong entity.

Attention needs to be given to searching techniques. If students generally accept Google's first recommended source because of the source's popularity, librarians need to equip them with ways of evaluating these sources *before* the link is followed. Information about how search engines operate (accompanied potentially by comparative exercises) also will be necessary. Calhoun, Cantrell, Gallagher, and Hawk (2009) report that when individuals were discussing library online catalogues, they were concerned that they had no idea how the system ranked their retrieval results and wanted this information provided to them. However, this was not mentioned when discussing Google's ranking system. There seems to be an innate trust of Google.

Institutions need to be better informed about the range of critical evaluation skills that students need to access and acquire information and sources regardless of format. This will enable them to adapt these literacies to any technologies or formats that may become available in the future. "Don't trust Wikipedia" or the US tendency to warn students not "to trust anything on a .com site" is probably unlikely to change students'

practices. The quotes below suggest that these behaviors only may push the students' practices underground.

> I fell really guilty about it. If I have absolutely nowhere else to go I have scoured Google, there is nothing in the library then I will have a quick look at Wikipedia and see what Wikipedia has to say about it. Then use maybe some of its other links or how it links onto other articles a bit like that. (UKU3)

Librarians could consider teaching online critical evaluation skills to students very early (possibly earlier than was typical when the institutional library was the key source of information) in their education. The comparative information "safety" of the institutional library has been superseded by the web, leaving students nervous as to which sources are valid.

The extent to which students successfully can complete assignments without engaging with institutionally-provided information sources is not yet clear. However, there are indications that the majority of information (and the learning that supports students' use) is drawn from sources from the open web. In the Emerging group this is heavily influenced by Wikipedia and by syllabus-based sites recommended by their tutors. One implication of this is that institutionally-provided information services could consider how to position themselves and what services are most needed when they are more often than not second to the open web in students' information-seeking practices.

The students in the study perceive institutionally-provided information as having a level of authority or validity above and beyond sources from the open web. They regularly check the URL of a source to assess its potential validity and often will imply that physical books from the library are the most valid of all sources (even if for convenience they choose not to use them). This indicates that the expert curation of links and media (whether locally produced or not) by institutions under a trusted URL is of great value.

There is little evidence of Emerging educational stage students seeking out librarians and other support staff specifically for advice on critically evaluating sources. Students appear not to see staff in these roles as a route to information. One useful response might be to suggest that staff attempt to convene an open discussion around students' actual information-seeking habits so that they can indicate where they will be of help.

Next steps

The researchers will continue to collect and analyze the diaries. They also will administer the online survey, and analyze these data as well as the data collected from the semi-structured interviews with the other three educational stage participants. Semi-structured interviews with a new group of Emerging educational stage participants will be the final data collection activity. All of the collected data will be analyzed and compared to portray the engagement of students and faculty with technology and information over a 3-year period.

Conclusion

Instead of reporting general information-seeking habits and technology use, this study explores how the subjects get their information based on the context and situation of their needs during an extended period of time, identifying if and how their behaviors change. The study uses both quantitative and qualitative data collection techniques that enable triangulation of the data analysis results.

The findings from this research can inform libraries of current and perspective users' expectations of services and systems based on their engagement and motivation with technology. The findings also can be used to develop options for designing and delivering digital platforms and services, which will enable educators and service providers to make informed decisions relative to engagement and motivation for individuals as they progress through the educational stages. The project will position the role of the library within emergent information-seeking patterns of both students and faculty by investigating and describing user-owned digital literacies.

Appendix A

Participant interview questions – Secondary/High school and University level

1. Describe the things you enjoy doing with technology and the web each week.

This is a conversational start in order to put the interviewees at their ease. We are trying to get a sense of their overall digital literacy so that we can set their information seeking behaviors within a broader context. Do they socialize online? (See probe.) Do they "contribute" online in the form of pictures, video, blogs, etc.?

[PROBES: How important is the web for your social life, do you use it to keep in touch with your friends? What gadgets/devices/things do you use the most, is there anything you "couldn't live without"? How much time on average do you spend online each week? Is there anything that bothers you about being online?]

2. Think of the ways you have used technology and the web for your studies. Describe a typical week.

We are looking at interviewees' use of educational technologies more specifically for study. We hope they will start to introduce informal learning, self-directed study, peer to peer learning, etc. We anticipate they will (or may not) mention Facebook, MySpace, etc.

[PROBES: How do you keep track of things? What systems for learning online do you have? Can you give us any examples of when you've asked your friends for help on assignments/homework online? What kind of online resources have you found that help you with your studies? How did you find them? What other gadgets or devices do you use for your studies?]

3. Think about the next stage of your education. Tell me what you think this will be like.

[Alternative University Student Interviews: What did you think university studies would be like when you were in high school? How is your experience different from what you thought it would be? Describe what you think the next stage of your education will be. Tell me what you think this will be like.]

This will hopefully encourage them to reflect on what they envisage their role will be in the next stage. What they imagine the next educational-stage to be like will be something we can cross check as we follow them through the project.

[PROBES: How do you think you will use technology in the next part of your education? If you think you will need to adapt the way you use technology, what sort of changes do you think you'll make?]

4. Think of a time when you had a situation where you needed answers or solutions and you did a quick search and made do with it. You knew there were other sources but you decided not to use them. Please include sources such as friends, family, teachers, TAs, tutors, coaches, etc. Prompt for both academic and informal (domestic, personal . . .) examples.

[PROBES: Did you simply take the first answer/solution you were able to find? What was the situation? What sources did you use? What led you to use them . . . and not others? Did they help? How? What sources did you decide not to use? What led to this/these decision/s? What did source A give you that you thought source B could not? Are there situations where source B would be a better choice for you?

How did you decide when it was time to stop looking? How did you assess what was good enough?]

5. Have there been times when you were told to use a library or virtual learning environment (or learning platform), and used other source(s) instead?

[PROBE: What made you decide not to use what you were asked to use? What kinds of things do your instructors want you to do when you're looking for information? Does what you do look like that, and if not, what does it look like?]

6. If you had a magic wand, what would your ideal way of getting information be? How would you go about using the systems and services? When? Where? How*?*

7. What comments or questions do you have for me? Is there anything you would like me to explain? What would you like to tell me that you've thought about during this interview?

Appendix B

Google diary questions

1. In your general use of technology for your coursework/research over the past weeks what would you say has gone particularly well? Why?
2. What would you say has not gone as well as you'd hoped or anticipated?
3. Have you any examples of when you used technology to help you with something that wasn't directly to do with your studies?
4. Have you got any examples where you didn't use technology to help with a problem or a project?
5. Have you picked up any new ways of doing things with technology?
6. Have you found that an approach to doing something that you've used in the past no longer works?
7. Have you found any new sources of useful information?
8. Is there anything else that you think would be useful for us to know about?

Notes

1. Cohen's kappa coefficient, a measurement method used for calculating inter-coder reliability, considers not just agreement, but what agreement may have taken place by chance.
2. NVivo 9, a qualitative software package, is a product of QSR International Pty Ltd. Further information on NVivo can be found on their website: http://www.qsrinternatio nal.com/products_nvivo.aspx.

3. The term crowd-sourced implies "free for all" when in fact Wikipedia has stringent "verifiability" rules (http://en.wikipedia.org/wiki/Wikipedia:Verifiability) which are closely policed, especially on the types of articles that are likely to relate to academic assignments.

4. For anonymity, participants are designated with tags which indicate their country (UK or US), their educational stage (S for Secondary school/High school, U for University, G for Grads, or F for Faculty), and then an individual number.

5. Jimmy Wales recently claimed that the decline in Wikipedia editors was due to the fact that many entries were now so accurate that only "experts" could contribute to them (http://midea.nmc.org/2011/08/wikimania-recap/). Sir Harry Kroto, Nobel laureate in chemistry was recently quoted as saying that in his field Wikipedia was more accurate than the textbooks (http://twitter.com/#!/jimmy_wales/status/132464444235186176).

6. See a reference to "presearch" relating to Wikipedia and Google Scholar at: http://blogs.ubc.ca/googlescholar/2009/02/wikipedia-google-scholar-as-pre-search/

7. This concept of "The Learning Black Market" has been well received through blogging and presentations at events such as NetSkills seminars and the JISC online conference. These events have been used as opportunities to refine our thinking as well as to disseminate the project's activity.

8. This already is happening in some institutions. At Davidson College in North Carolina, a psychology professor partnered with Wikipedia as a part of their Education Program (http://outreach.wikimedia.org/wiki/Wikipedia_Education_Program), and had her students edit Wikipedia articles as a part of her capstone senior class (Munger, http://www.psychologicalscience.org/index.php/members/aps-wikipedia-initiative/having-undergraduates-write-for-wikipedia). At University College London, for example, one lecturer requires his students to compose and post Wikipedia articles. In so doing it would seem that Wikipedia has been lifted from black-market territory into a "teachable moment." This is the sort of initiative which could usefully be developed and expanded.

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Re-training of librarians for the digital work environment by the Nigerian Library Association

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Abstract

This paper examines re-training of librarians for the digital work environment by the Nigerian Library Association (NLA). In addition to personal observation a documentary analysis of the contents of NLA Information Technology Section workshops training Compact Disc (CD) for the period 2007 to 2011 was used to collect data for this study. Findings from the analysis revealed that the Information Technology Section of the Nigerian Library Association has been playing a vital role in re-training librarians for the digital work environment in their annual Library and Information Technology Today workshops. Recommendations include streamlining the topics covered in the annual workshops for effectiveness.

Introduction

The infusion of information technology in the academic library has resulted in a digital work environment, an environment in which information is increasingly being created and offered in a digital format, either locally or remotely. This has changed the way the library offers its services and requires librarians to acquire new skills in addition to traditional library skills. It can also be argued that the most crucial element in developing a successful library in the digital work environment is having the right staff with the appropriate information technology skills in place.

Library and information services in this digital era are increasingly technologically driven, thereby changing the way library provides its services. To effectively work in the digital work environment, librarians require re-training with the skills, knowledge, and experience that will enable them to manage digital information resources and services. The importance of staff re-training in the provision of library and information services in the digital environment cannot be over-emphasized. Tennant (1995) posits that adequate staff training requires a firm commitment from library administrations.

He went further to assert that it is essential to allow and encourage staff to take the time to learn and utilize new skills. Any investment made in re-training staff skills to meet the challenges and opportunities of the electronic age will be repaid many times over in facilitating access to information to increasingly digitally knowledgeable library patrons in Nigeria.

The knowledge and skills that are relevant for librarians to effectively work in the digital environment must include a certain degree of knowledge and skills in information technology. While library schools train librarians in the traditional school setting, professional associations have a basic role in retraining and updating librarians already in the workforce to be efficient. With the emergence of the digital work environment it becomes mandatory for practicing librarians to acquire new skills that will make them more effective in providing library and information services that are relevant

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to the digital work environment. There is a need, therefore, to examine the extent to which the Nigerian Library Association has repositioned its members to new challenges.

Objective and methodology

The objective of the study is to examine the role played by the Nigerian Library Association, particularly its Information Technology Section, in the re-training of Nigerian librarians for the digital work environment through an annual series of Library and Information Technology Today (LITT) workshops. The paper goes further to identify the themes and topics covered by the Information Technology Section of the Nigerian Library Association and their relevance to the information technological skills needed for the digital work environment.

At the end of each annual LITT workshop a CD-ROM containing all the papers presented and a list of registered participants with their addresses is produced and distributed to participants. For the purpose of this study, documentary analysis of each of the CD-ROMs for the years 2007 to 2011 was carried out. Documentary analysis was deemed the most appropriate method to adequately analyze the themes, topics covered, lists of resource persons and participants. In addition, personal observations were carried out by the researcher during the period covered for this study.

The Nigerian Library Association

The Nigerian Library Association (NLA) is the professional body for all librarians in Nigeria. It started as a Division of the West African Library Association (WALA). WALA itself was established in 1954 as an offshoot of a UNESCO seminar on the development of public libraries in Africa held at Ibadan in 1953. With the political independence from colonial rule of Anglophone West African countries in the late 1950s and early 1960s, the WALA national division for Nigeria transformed into the Nigerian Library Association (NLA) in 1962 (NLA Website, 2010: http://www.nla-ng.org). Individual members of the Association, now numbering about 5000, are drawn from various types of libraries throughout the country. Every librarian would normally belong in the first instance to one of the 37 States/Federal Capital Territory Chapters and one or more of the 11 interest groupings. One of the interest groups is the Information Technology Section.

The NLA holds an annual conference and general meetings. The conference provides a platform for its members to present papers on current trends in library and information services within a selected theme and sub-themes. Even though not clearly stated as one of its objectives, the Nigerian Library Association, like all other professional associations, plays a vital role in the professional development of its members. Most of the interest groups hold annual workshops at the national level for re-training of their members. The Information Technology Section of the association has, over the past 5 years, organized Library and Information Technology Today (LITT) training workshops to re-train its members with information technology skills for the digital work environment.

Emerging technologies in Nigerian libraries

Policies of the Federal Government of Nigerian, such as the Nigeria Information Technology and Telecommunication Policy have facilitated the emergence of library patrons who are knowledgeable about information technology and who prefer digital information services. According to Internet World Statistics there were over 44 million Nigerians using the Internet as at 2011.

Offline CD-ROM technology providing access to both bibliographic and full text databases and integrated library systems was the earliest information technology that appeared in Nigerian libraries. TinLib, an integrated system, with modules for search, cataloguing, circulation, acquisitions, periodicals and serials control, network communication, and selective dissemination of information, was made available in 1991 to academic libraries by the Nigerian Universities Commission (NUC) through a World Bank credit facility. The University of llorin, Ahmadu Bello University, Zaria, the University of Ibadan and the University of Lagos were some of the few universities that were able to implement and use TinLib and eventually migrate to other library management software.

The deregulation of the telecommunication industries in the last decade and increasing funding for libraries by the Nigerian Tertiary Education Fund (Tetfund) has made Internet access affordable to many libraries in Nigeria. This opens the door to real-time access to resources and services located throughout the world and maintained by numerous libraries, vendors and consortia (Dahl et al. 2006). Burke (2009) also asserts that the Internet continues to stimulate library staff to re-training

and acquire skills for delivery of services to patrons. Libraries have a website with links to the library catalogue, database and other value added-websites. Gbaje (2007) reported that some academic libraries in Nigeria have already started using the Internet for provision of information resources and services through their websites.

In addition to deploying Integrated Library Systems and maintaining a library website, many academic libraries in Nigeria are currently in the process of digitizing their indigenous collections for preservation and wider access. These libraries have adopted different digital asset management software such as Greenstone, DSpace, Eprint, Fedora, bepress, etc., to manage their digitized collections. For example, while Ahmadu Bello University, Zaria and the University of Jos have adopted DSpace open source software, Covenant University adopted Eprint for the digital repository.

Any implementation of electronic information sources in the digital work environment needs to be accompanied by intensive staff training. This training should be aimed at how staff members can help educate patrons who have questions about the new resources or how to use them.

According to Saleh (2011), Nigeria has over 50 institutions including universities, polytechnics and colleges that offer library and information science programs at certificate, Ordinary National and Higher Diploma, degree and higher degree levels. Many of these library schools have recently incorporated information technology-related courses to enable them to train information professionals who will work in the digital environment. However, the re-training of practicing librarians for the digital work environment is carried out mainly by the Nigerian Library Association (NLA).

Re-training for the digital work environment

The use of technology requires a significant investment in time, money, and training of both staff and patrons. Hanson and Levin (2003) stated that the evolution of information technology requires that staff skills and competencies be continually upgraded and maintained to make the best use of these technologies. Supporting this assertion, Burke (2009) argued that training is crucial to the successful use of electronic resources in the library.

The enabling technologies for the digital work environment include: open source Apache Web Server, web scripting languages, such as PHP,

Table 1. Technologies or technology skills for the digital work environment.

S/No	Technologies or Technological Skill
1	E-mail management skills
2	Microsoft word (Word Processing Skills)
3	Microsoft Access (Database management skills)
4	Microsoft Excel (Spreadsheet Skills)
5	Power point (presentation software)
6	Use of Portable Document Format (PDF) Software
7	Web Searching Skills
8	Searching library databases
9	Using an Integrated Library System (Virtua/Alice for Windows etc)
10	Use of Digitization Software(Greenstone/Dspace etc)
11	Use of Digital Camera for Digitization
12	Web navigation Skills
13	Teaching others to use technology
14	File management/operating system navigation skills
15	Troubleshooting technology
16	CD-ROM/DVD Search
17	Scanners and similar devices
18	Creating online instructional materials/products
19	How to cite and evaluate Internet resources
20	Installing software
21	Troubleshoot printing problems
22	Web design
23	Instant messaging
24	Computer security knowledge
25	Connecting patrons laptop to the library wireless
26	Blogging
27	Wiki
28	Installing Printer, scanner and computer systems
29	Graphic Design
30	Network management
31	Computer programming
32	Creating & updating Institutional OPAC

Adapted from Burke (2009).

ColdFusion, and Microsoft's Active Server Page. They also include relational databases such as MySQL and PostgreSQL and other general purpose tools for storing, searching and manipulating information.

The use of library integrated systems for the automation of libraries requires IT skills which include:

- Developing web-related applications to create personal or library web pages and content.
- The use of HTML, MARC, OCLC, Z39.50 and World Wide Web formats.
- The deployment of websites by the library to anchor various online library services requires special IT skills, some of which include:

Table 2. NLA Information Technology Section LITT Workshops 2007–2011.

Location	Year	Theme	Topics

Jos, Plateau State	2007	Library automation: what works and doesn't work	Library Automation Principles I
			  What to Automate
			  Determining Your Current and Future Automation Needs
			  Winning Tips With Vendors
			  Staff Training and Capacity Building
			  Survey of Automation Software
			  Demonstration of Software for Various Library Uses
			  Environmental Considerations of Library Automation
			  Guiding Principles for Choosing Automation Software
			  Running and Launching Automation Projects
			  Automation: Possible Problems and Solutions

Zaria, Kaduna State	2008	Basics of Web Publishing for Libraries and Information Centres	Web Development: What is it?
			  Web based Services in the Library
			  HTML 101 and Introduction to Dreamweaver
			  Website Design: The Good, the Bad the Ugly
			  Web design Graphic and color
			  Web hosting services: What to look for and services available in Nigeria
			  Blogging: Creation and Management
			  Information Seeking
			  Advanced Web Development: Integrating RSS Feeds into your website
			  Web Design Standards (Basic Technical Issues)
			  Website staffing and maintenance issues

Nsukka, Enugu State	2009	Building and Managing digital Collection	Step-by-step Guide to Digitization
			  Developing Institutional Digital Policy
			  Critical Consideration for Digitization
			  A Digital repository in 30 minutes
			  Hardware and Software Requirements for Digitization
			  Content Management Systems: The Joomla Example
			  Organizing local Content
			  Website Mirroring with HTTrack Website Copier
			  Dspace Institutional Repository
			  Planning for Digitization

Lagos	2010	At the Cross-Road: Nigerian Libraries and the Digital Revolution	Social Media and Library Marketing
			  Social Media and Libraries I
			  Cloud computing and mobile web
			  Google Apps Training
			  Social Media and Libraries II
			  Practical Application of Internet Assisted Research
			  Applying Collaborative Techniques for Effective Information Services
			  Introduction to Database

Ogwashi Uku, Delta State	2011	Information Literacy in the 21st Century	Concept of Information Literacy & Life Long Learning
			  Information Literacy: Models, Standards and Strategies
			  Progress In Information Literacy: Principles, Policies, Programmes, And Best Practices
			  Information Literacy and Social Media
			  Strategies for Developing Information Literacy
			  Evaluating Web Resources
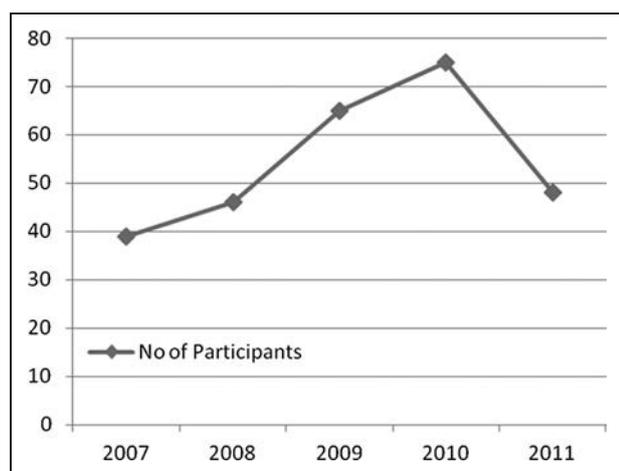
Figure 1. 2007-2011 LITT No of Participants.

- Web design skills using web authoring tools such as Dreamweaver, Content Management Software, FrontPage and HTML.
- Programming with PHP, JavaScript.
- Construction and maintenance of databases for dynamic websites.

Online information services such as online reference services, blogs, online and offline database search, wiki and document delivery and emails are also popular services libraries provide to their patrons.

Information technology knowledge must be continually upgraded and maintained to make the best use of these technologies. One might argue that the above technology skills are for systems librarians, digital services librarians, IT librarians, etc. However, the baseline technology skills for every librarian to be effective in the digital work environment include one or more of the skills listed in Table 1.

In general all librarians should be familiar with installing, configuring, and using a browser and should be able to discuss intelligently their favorite search engines on the Web and explain why they use each one. Librarians should also be able to discuss when a Web search is preferable to a print search, and vice versa. Librarians have explored the use of email beyond just communications to include online document delivery services and selective dissemination of information. Due to the evolving nature of operating systems, all staff should be familiar with whichever version of operating system is run within the organization, how to navigate through it (with and without a mouse), and how to manage files associated with them.

Information Technology Section Workshops

The study sought to identify the themes and topics covered in the annual Library and Information Technology Today (LITT) workshops organized by the IT Section of the NLA, as shown in Table 2.

From Table 2 it is obvious that over the past few years the Information Technology Section, through its annual Library and Information Technology Today (LITT) workshops, has provided members of the Nigerian Library Association with a platform to equip them with the necessary technological skills relevant to the digital work environment. The themes and topics for each year's workshop were selected based on the suggestions of members. The suggested topics are further analyzed and streamlined for effective teaching and learning by the executive of the Information Technology Section, taking the current trends in the library and information profession into consideration.

Table 2 reveals that during this period under study, no subthemes or topics on email management, word processing, spreadsheet and Power Point presentation skills were considered. This is an indication that the majority of NLA members had sufficient knowledge and skills to work with these packages effectively in the digital work environment. Topics like computer programming, network management, creating online instruction materials are yet to be covered by LITT workshops.

In Table 1 creating online instructional materials/product and Web design are listed as technology skills for the digital work environment: these skills were the focus of the LITT 2008 workshop with the theme, 'Basics of Web Publishing for Libraries and Information Centres' and topics discussed under this theme included: 'Web development: what is it'; 'HTML 101 and Introduction to Dreamweaver'; 'Web design graphics'; 'Web design standards,' etc. Technical skills such as use of digitization software and use of digital cameras for digitization were also addressed in the LITT 2009 workshop under the theme 'Building and managing digital collection' as shown in Table 2.

Creating and using social media like blogs, wikis, social bookmarking and RSS feeds/readers were the focus of LITT 2010 under the subthemes of social media and library marketing, and social media and libraries, as shown in Table 2. These topics are also some of the skills required in the digital work environment as listed in Table 1.

Table 3. LITT Workshops, 2007–2011. Number of participants and type of institution.

Institutions	Participants in 2007	Participants in 2008	Participants in 2009	Participants in 2010	Participants in 2011	Totals	
						No.	%
Universities	12	18	27	35	18	110	40
Special Libraries	17	23	27	32	21	120	44
Colleges and Polytechnics	8	05	11	07	09	40	15
National Library of Nigeria	2	–	–	–	–	2	1
Total	39	46	65	74	48	272	100

Table 4. LITT Workshops, 2007–2011. Resource persons.

Year	Name	Work Address
2007	Samuel A. Eyitayo	Information Resource Specialist, US Embassy, Abuja
	Stephen A. Akintunde	Deputy University Librarian (Admin. & Systems) University of Jos
	Dalhatu Hamza	Education Advisor, US Embassy, Abuja
	Chinwe Anunobi	ICT Librarian, Federal University of Technology, Owerri
2008	Joseph E. Longshak	Central Bank of Nigeria Library, Research and Development Cooperate Headquarters
	Ezra Shiloba Gbaje	Department of Library and Information Science, Ahmadu Bello University, Zaria
	Linda Parker	Information Resource Center, US Embassy, Abuja
	Samuel A. Eyitayo	Information Resource Center, Specialist/Webmaster US Embassy, Abuja
2009	Stephen A. Akintunde	Deputy University Librarian (Admin. & Systems) University of Jos.
	Joseph E. Longshak	Central Bank of Nigeria Library, Research and Development Cooperate Headquarters
	Ezra Shiloba Gbaje	Department of Library and Information Science, Ahmadu Bello University, Zaria
2010	Samuel A. Eyitayo	Director, Whitney M. Young Jr. Information Resource Center, Public Affairs Section U.S. Consulate General, Lagos
	Ayo Alonge	KPMG Library
	Felix Azubuike	Nigeria Accounting Standards Board, Alausa, Ikeja
	Bridgette Sexton	Manager, Programmes, Google – Africa
	Festus Ugwu	Upperlink Limited, ASSBIFI House, Alausa, Ikeja
	Ezra Shiloba Gbaje	Department of Library and Information Science, Ahmadu Bello University, Zaria
2011	Ayoku A. Ojedokun	University Librarian, Bowen University, Iwo, Osun State
	Charles O. Omekwu	University Librarian University of Nigeria
	Nonso Amadi	APTECH, Worldwide, Abuja
	Stephen A. Akintunde	Deputy University Librarian (Admin. & Systems) University of Jos
	Ezra Shiloba Gbaje	Department of Library and Information Science, Ahmadu Bello University, Zaria

Although the Nigerian Library Association currently has over 5000 members, analysis of the lists of workshop participants shows that fewer than 75 members attended any workshop, as shown in Figure 1.

Table 3 presents amore detailed breakdown of the attendance figures, and shows that a total of 272 participants registered and participated in LITT workshops during the period under study – an average of 54 per year. Participants from special libraries, which comprise libraries from government agencies like the Nigerian Petroleum Company, the Nigerian Civil Aviation Authority, the Nigerian Press Council, the Nigerian Nuclear Regulatory Authority, the Federal Radio Corporation of Nigeria, Ibadan and the National Population Commission, Abuja, to mention just a few, provided the highest number of participants, accounting for 44 percent of the total. Universities provided the second highest number of participants (40 percent), while the National library of Nigeria only sent two participants – less than 1 percent of the total – to the first workshop in 2007. There were apparently no participants from public libraries.

The attendance sheets for each workshop reveal that the University of Lagos Akoka Lagos State, the American University of Yola, the Kaduna

State University, the Nigerian National Petroleum Company Library, the University of Nsukka, and Ahamdu Bello University Zaria sent the same people as participants in the 2008, 2009 and 2003 LIT workshops . The data also reveal that participants during these workshops came from all six geopolitical zone of the country.

There was a sharp decline in the number of participants who attended the LITT workshop in 2011 as compared to 2010, as depicted in Figure 1 and Table 3. Through personal interaction, some participants revealed that the low turnout for the 2011 workshop was because many felt that the theme and topics for that year were not technologically related.

Having participated in four of the workshops, the researcher observed that the workshops were all practically based, even though very little time was allocated for the hands-on sessions. The researcher also observed that during these workshops Internet access was erratic.

The resource persons for these workshops were experts knowledgeable in the application of information technology in libraries. Table 4 lists the resource persons for LITT workshops during the period understudy, and shows that Samuel A. Eyitayo and Ezra Shiloba Gbaje (PhD) served as resources persons four times, while Stephen A. Akintunde (PhD) and Joseph E. Longshak were resource persons three times and twice respectively . The repeated use of these resource persons is largely due to the high rating of their teaching skills and level of knowledge by the participants, as recorded in the evaluation forms distributed at the end of each workshop. Further examination of the evaluation forms also reveals a persistent request for more time for the hands-on session and complaints about the slow Internet speed at the various training locations.

Conclusion and recommendations

To work in a digital environment, the information professional needs basic fluency in information technology. The re-training of Nigerian librarians for the digital work environment has been a task undertaken by the Information Technology Section of the Nigerian Library Association. Workshops on library automation, digitization of library resources, website design and use of Web 2.0 for library services have been the focus of the LITT workshops for the past 5 years. The spin-off from these workshops can be seen in the few libraries currently providing online services and digitizing their materials and which had ensured that they sent their staff to the LITT workshops. Examples include Ahmadu Bello University Library (www.abu.edu.ng/library/index), the University of Nigeria Nnsuka Library (http://www.unn .edu.ng/library), the University of Lagos Library (http://library.unilag.edu.ng/) and the University of Abuja Library (http://uniabujalibrary.net/) to mention just a few.

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Locating librarianship's identity in its historical roots of professional philosophies: towards a radical new identity for librarians of today (and tomorrow)

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Abstract

'Librarian identity' is a contested arena, seemingly caught up in a values-war between traditional principles of 'citizenship' and late 20th century's shift to a democracy of consumerists. New professionals may be wary of associating with established systems of their own professional hierarchies when professional associations may be perceived as not having paid enough attention to how this shift in values has been effected, yet this is the key question to address: how has this shift towards 'information management/consumption'; the library member now as 'customer'; and new models of library provision by private or social enterprises, impacted on the profession's identity as a whole? What does it means to call yourself a Librarian in the 21st century? This paper will trace the roots of the philosophy of Librarianship, in its changing shapes, to establish how professional identities are formed, ranging from Edwards and Dewey's originating 'librarian' as book keeper/cataloguer or library 'economiser'; through to Otlet and Shera's 'Documentationalist'; Ranganathan's librarian 'helper'; and present day incarnations such as Lankes' librarian as 'community knowledge creation facilitator'. Incorporating historical analysis of the roots of librarianship's philosophies, this paper develops a thesis relating to how modern day librarian professionals, practicing in non-traditional areas and ways, may be helpful in suggesting a route out of the LIS echo-chamber of identity crisis, alongside the evidence of librarianship's historical trail. It is proposed that by investigating librarianship's underlying philosophies, and by listening to those who may not necessarily have traditional library qualifications or work in traditional settings, but who work as members of the profession in information and info-literacy skills, a way to forging a new identity can be observed. Examples of member/non-member outreach and activities are provided to illustrate how this new identity can be shaped to rise, phoenix-like, in a radical new, engaging, and engaged form.

In today's 21st century world landscape, awash with technology, as well as war, attrition, peace, censorship, freedom and understanding, remains a timeless character: The Librarian.

Presently situated here in the unsettled days of 2012, the immemorial identity of The Librarian nonetheless also contains friction and divergency: in both name and the role she is expected to perform professionally. "In terms of nomenclature there are mixed opinions regarding the term 'librarian'", the Chartered Institute of Library and Information Professionals (CILIP) 'Defining Our Professional Future' 2010 report (CILIP 2010)[1] found, wherein respondents claimed the term had "negative or misleading associations amongst the public, and often amongst non-professional librarians within the profession", the report going on to add, however, that "most librarians are happy to be called 'librarians'. They feel this is a

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term that the public recognises even if they are unaware of the difference between a qualified and an unqualified librarian" (CILIP 2010: 16), while the report also noted that it is a "fragmented profession", citing respondents stating "that this is not an industry but a profession of librarians and information professionals ... there are too many differing sectors ... those working in [the] commercial sector are more likely to describe themselves as 'knowledge managers' rather than 'librarians' [who] ... see their role as increasing the knowledge base and expertise within their organization." (CILIP 2010: 13).

This equivocacy can also in fact be demonstrated by the multiplicity of definitions available for the term 'librarianship', which perhaps also speaks to the multifarious nature that the Library and Information Science (LIS) discipline appears to possess. Buckland notes that "[t]he term 'librarianship' is ambiguous" (Buckland 2010: 13) – as it can not only "refer to a set of techniques" but also the "occupational field of those who are known as librarians" (p.17) – and neatly sidesteps the very issue of ambiguity he has himself raised, by declaring (after a brief exploration of librarian technique versus occupation issues) "[n]either definition is satisfactory" (p.26).

Buckland does however point towards two other definitions, but introduces them by way of caution, noting that the term "information science" has "[u]nfortunately ... been carelessly used and even, on occasion, treated as a near synonym for librarianship" (Buckland 2010: 13), which although a technically credible point to make, in that there *are* distinctions to be made between, for example, techniques and applications relating to 'information science' versus 'librarianship', it is not necessarily helpful in defining 'librarianship' to introduce such a strict delineation as Buckland seems to require.

In fact, paying attention to the historicity of the LIS discipline provides much evidence to support convergent forms of defining 'librarianship', with arguably the initiation of some defining aspects of the profession provided by the example of individuals involved with the Library of Alexandria, the "largest and most renowned library of antiquity" where a "catalogue (pinaces), compiled by Callimachus of Cyrene (chief 'librarian' 260–240 B.C.), divided the collections into eight subject classes" (Borda 1996: 20). The pinaces (or pinakes/pinakoi) is widely recognized as, in effect, something akin to the first (surviving) 'library catalogue', an organized bibliography of Greek literature which was vast, and, in fact, "far more than a mere catalogue. It included brief lives of the principal authors ... the dates of the production of the plays. It was divided into eight classes: – (1) Dramatists,

(2) Epic poets etc., (3) Legislators, (4) Philosophers, (5) Historians, (6) Orators, (7) Rhetoricians, (8) Miscellaneous Writers", with some sections ordered by date, others by subject, and others arranged alphabetically, while "[i]f the authorship was disputed, the various views were stated" (Sandys 2010: 122). Here, then, it is possible to trace the origins of many of the skills that 'librarians' of today in fact recognize as being classic facets of the profession's identity, such as cataloguing, indexing, and classification, which, while the CILIP report acknowledges these as "[t]he more 'traditional' librarianship skills" too, it finds that they are now "used by a smaller proportion; cataloguing and classification skills are employed by just under half of those completing this survey, and indexing skills are used by a quarter" (CILIP 2010:37).

Interestingly, it is clear from the many accounts relating to the Library of Alexandria that those enjoined directly in performing its services were not only primarily scholars – learned as grammarians or historians, for example – but that many were also poets. Zenodotus (an epic poet and grammarian) and Lycophron (included as one of the seven 'tragic poets', known as the Alexandrian Pleias) are such examples, while Aristophanes (c.257–c.180 B.C.) followed on from the work of these predecessors in producing edited texts of Homer and monographs on proverbs, although not contributing any original poetic works himself. The eye and ear of the poet too, can be discerned in more modern day librarianship incarnations – the poetry of librarians Philip Larkin and Elizabeth Jennings being two more famous twentieth century examples.

> As Librarian, Zenodotus classified the epic and lyric poets, while ... Lycophron ... the comic drama. He [Zenodotus] compiled a Homeric glossary, in which he was apparently content with merely guessing at the meaning of difficult words. Shortly before 274 [B.C.] he produced the first scientific editions of the Iliad and Odyssey ... He deserves credit ... for making the comparison of MSS the foundation of his text ... His recension of Homer was the first recension of any text which aimed at restoring the genuine original. (Sandys 2010: 119–120)

Editing, fact-checking and source verification, amongst other skills, can also therefore be seen as key requirements of 'librarians' during this period, with a relatively large margin allowed for 'creativity' (of interpretation, of action, etc.) which might well be the envy of more contemporary LIS colleagues. This era can be referred to perhaps as the pre-eminent age of the librarian scholar, and no doubt owes a debt of

inspirational pedigree to the work of Aristotle and his own understanding of the importance of maintaining, accessing and preserving libraries.

Another shift in praxis for the profession can also be found in the role and activities of monastic libraries, wherein under the direction of the 'librarius' and the statutes governing book procedures, "lists of books lent" (Hessel 1950: 26) were kept and maintained, as well as classification and inventory tasks being performed, and a distinction being made between collections requiring different users and uses, such as reference or circulation. Manguel notes that "[p]erhaps the earliest example of subject cataloguing in medieval Europe is that of the library of Le Puy Cathedral in the eleventh century" (Manguel 1996: 193), while Hessel points to the "wandering and spread of manuscripts from monastery to monastery, first from South to North, then back again in the opposite direction" (Hessel 1950:16). Here then, it is possible to see the beginnings of the modern skills of collection management, and 'interpersonal' or 'communication' skills as they would likely be termed today, while Summit notes "[English] monks produced models of compilation and bibliographical organization that continued to exert an influence well beyond the Reformation" (Summit 2008: 237).

Moving into the later period of monasticism (and the following Dissolution), and the founding of the first universities with libraries, a greater tension arises between servicing users and preserving books which revives the (Middle Ages) practice of the chained book, with Streeter dating the 'Chained Library' in England to about 1320 (Streeter 2011: 6). Rather maligned as a practice by historical sources, Summit introduces the interesting argument that the rationale was in fact "to make books available to readers rather than to 'hoard' them (the modern analogue is the telephone book, which is 'chained' to its booth precisely because it is shared property)" (Summit 2008: 237), suggesting that the 'book-keepers' or 'library-keepers' of these times were in fact mindful of the ease with which items could be stolen or destroyed and thus lost for use by the community. This stress on 'use' and the 'utility' of the book as a form which enables and facilitates communication gains a particular emphasis in librarianship of (relatively) 'modern' times, highlighted by librarian scholar, and "father of library science" (Jeevan 2005: 179)[2] S. R. Ranganathan, in his seminal work *The Five Laws of Library Science* (Ranganathan 1957).

Ranganathan evidences the 19th century library and librarian's place on this 'utility' spectrum by detailing the restriction of access to books through such modes as library opening hours – "[b]ooks might be taken out only during two hours on two days of the week" (p.38) – and by linking a lack of professionalization, and its concomitant lowly-paid and lowly-considered not-quite-yet-professional, who "one must be really thankful … does not succumb to the temptation to keep all good new arrivals in his exclusive private custody" directly to the concept of facilitating 'use' of books, and thus this as one of the defining elements of the 'professional' librarian, "a post under the dignified title 'Librarian' … the salary shown against the entry may imply a deplorable lack of appreciation of the need for a real librarian, who can get the BOOKS USED" (p. 53) [capitals emphasis in original], and so he places the concept of 'use' or 'utility' intrinsically at the core of definitions of librarianship.

In fact, this dynamic tension or *Spannung*, is arguably always at the core of the professional service of the librarian, caught, on the one hand, between servicing the usage needs of the individual user, and on the other, the needs of the collection. Scarcity (artificial or otherwise) of resources acts as a constraint, and means that sometimes the librarian must consider the collection's needs over and above those of an individual patron, especially when the collection's needs double as the community's. This creates a tension in use, what could be termed perhaps the 'Library Utility Paradox', which is always in flux, and is in some ways uniquely manifest in public libraries, as they must wrestle with providing both an individual service while performing their role as a 'public good'.

This age of the dedicated 'library-keeper' or 'book-keeper' pre-empts the official arrival of professionalization of the profession (marked by the founding of library associations in the USA in 1876 and in the UK in 1877) but demonstrates the presiding characteristics at play in 'librarianship' up to this point, drawn from the various requirements thrust upon those engaged in such typical practices as bibliography creation or cataloguing, collection creation and management, as well as book preservation or resource sharing, each in turn given more or less emphasis during specific periods of time or historical contexts.

These changing shapes of 'librarian identity' and the philosophies influencing its making and remaking can be seen to more rapidly shift as a move towards formalization of both the profession and the library movement per se occurs from the 19th century onwards. Edward Edwards, with his vision of a 'library economiser', working out practical, common-sense answers (as Greenwood would have it) of "the problems connected with public access, classification, cataloguing and other branches of library work"(Greenwood 1902: 137) leads the initial way, followed by a

pronounced modification through the work of 'docu-mentalists' Paul Otlet and Suzanne Briet, who both focus on the nature of the 'document', rather than the library, itself. This philosophy is based on the use of the word "conduit" as the pertinent metaphor – that 'ideas' and information 'flow' – and then coupled with the notion that information and ideas exist as content 'in' something, be that books, databases, or files etc., which is in turn picked up by Ranganathan's 'books as information containers' mantra.

Shera notes that "librarians were especially appre-hensive over the invasion by documentalists", swiftly followed by an apparent deluge of "information scientists" (Shera 1973: 265), both groups, according to Shera, maintaining "an open contempt for librar-ianship itself" (p.271). Shera characterizes such developments as fractures, that is, examples of the "widening split in librarianship" (p.271), recognizing that this schism, with its "desire of an alien group to change the terminology of the invaded" generated "more emotional heat than intellectual enlighten-ment" (p.271) in Shera's eyes, and where others see discrete discipline delineations Shera sees parts of a composite whole, so that, for example, "[d]ocumenta-tion, therefore … is nothing more than a form, or aspect, of librarianship" just as information science is "interrelated and interdependent in a variety of ways" (pp. 275–276).

On this basis, it is thus extremely useful in fact to refer to definitions of 'librarianship' which incorpo-rate 'alien' viewpoints, in an attempt to reach a more holistic understanding of the term, in what Irwin viewed as the "country of librarianship" where the librarian is "concerned with books as vehicles of knowledge" (Irwin 1949: 64) and "[l]ibrarianship is above all an individual service" (p.188) concerned with "value and the potentialities of the human mind" (p.123). Irwin posits that librarianship can be under-stood instead as "applied bibliography", and where "[t]he end of librarianship is only achieved when each reader and each book is treated as a living and unique individual" (pp. 37–38) he sees that since "knowl-edge must be free, so also is freedom necessary to librarianship" (p.110).

Here then, in Irwin, it is in fact possible to discern a 'librarian identity' closely tied to notions of freedom (in the democratic sense); as well as an attendance to notions of 'human mind'. Both these elements can be seen to re-occur in discussions around the philosophy of librarianship, and in particular the work of Busch-man in more present times has revitalized the particu-lar concept of democracy, with Buschman noting "this relationship of LIS to democratic theory is aposi-opoetic in both senses of that word: Democratic

theory is an unfinished, discontinued idea in LIS, or in its older Latin and Greek meaning, there is a silence maintained" (Buschman 2007: 1484).

Irwin's concept of individual needs of the human 'mind' is similarly found to be re-articulated by both Foskett more than a decade later, and Osburn 50 years later, who cites Foskett as pointing to "[t]he uses of books all derive from an intellectual need" (Foskett 1962: 6, cited in Osburn 2009: 125), while himself determining that "any motivation for reading is, in fact, a purpose, so that all reading is purposive" (Osburn 200: 126). Osburn goes on to declare that "librarianship has allowed, or perhaps caused, the *purpose* of … technology to be overshadowed by the *mechanics* of … technology" (p.126) [emphasis in original], which in fact exactly follows Mukherjee's questioning 50 years earlier whether "the drift towards the preponderance of technicalities, [is] a portent, of the superstructure of librarianship being regarded as more important than the ends to be served?" (Mukherjee 1966: 3).

In this way, it can begin to be seen how certain phi-losophies, beliefs and concepts gain greater or lesser adherence in the domain, some returning ghost-like to demand further scrutiny.

One such apparent 'careless' or 'information sci-ence' synonymous use however, pace Buckland for definitions of librarianship, is that of Meijer's epon-ymous 'Librarianship: A Definition', which in stating here can be found in fact to be helpfully holistic in its content:

> Librarianship is a form of cultural enterprise whose main characteristic is the stimulation of the optimum use of mankind's cultural heritage insofar as it con-sists of coded thoughts recorded in documents that are and must be held in readiness for use with the ulti-mate objective of making possible cultural progress (also in the fields of religion and science) in its par-ticular sphere. (Meijer 1982: 24)

Jesse Shera meanwhile cites Paul Otlet's somewhat more concise 1934 definition: "a process by which are brought together, classified and distributed, all the documents of all kinds of all areas of human activity" (Shera 1973: 273), with the added caveat that it places the emphasis on process and procedure. One of Shera's own descriptions: "[g]one forever is the librarian as sorcerer-priest with his papyrus roles … the modern librarian, in whatever branch of librarianship he elects to serve, must be well edu-cated, professionally competent, and highly qualified to play an important part in the communication pro-cess of today's world" (Shera 1972: 108), can be seen to similarly place an emphasis on the documentalist's

approach to the field – an approach which he and Otlet share – in terms of the importance of transmission modes in the process of informing. Shera elsewhere states that "[l]ibrarianship, in the generic sense, as a professional activity, is concerned with all of these agencies, operations, techniques, and principles that contribute to the objective of making graphic records as useful to human society as is humanly possible" or more succinctly, "maximizing the social utility of graphic records for the benefit of mankind" (Shera 1973: 274).

This is mirrored in Urquhart, who writes that "[l]ibrarianship is concerned with the flow of information to individuals" (Urquhart 1981: 56) who adds, rather afterthought-like, to his specific list of "Principles of Librarianship", that "[t]here is one more principle which is so axiomatic to me that I have almost forgotten to include it: Librarianship is an experimental science" (p.20) which can be seen to both contrast and complement Mukherjee's determination that librarianship is a "composite discipline" and "in the main a humanistic study" (Mukherjee 1966: 19). This thread of 'communication' and the 'flow' of the 'information' process, noted by Otlet, Shera and Meijer is also caught and more finely interwoven with the concept of 'efficiency' by Ronald Staveley, who states that "[i]f librarians regard themselves as operating a communication system, they must clearly accept responsibility for making every part of it as efficient as may be" (Staveley 1964: 11).

What many of these definitions have in common so far then is the primary concept of 'use' or the 'utility' of books or documents, as 'information containers' which can be seen to follow S. R. Ranganathan's statement that "[b]ooks make communication transcend the limitations of time and space. These may be said to transform the idea, to be communicated, into physical entities called Books, and thus make it fit for transport across space and through time" (Ranganathan 1974: 18) albeit with the aid of the 'librarian helper', who "helps people to help themselves". 'Books' can be read as 'documents' for documentalists, and in fact it is not necessary to focus on the specific physical form here in this statement, but more the notion that by a "form, an idea is carried from any point to any other point on earth and it is also preserved for any length of time" (p.18).

Meanwhile Broadfield, somewhat discounted in his day and in less recent times, though he appears to be beginning to ride a welcome resurgence (Mai 2001: 14–15)[3] notes that although it is not the librarian who has "...the responsibility to help ... [people] to be free and happy" however it *is* the "librarian" who "should contrive to help people to live full individual lives by showing them the way without badgering them and thus depriving them of the chance of spontaneity" (Broadfield 1949: 13).

He sees this in the form of librarians making "a unique contribution by safeguarding freedom of thought, which is not only a vital constituent in liberty but a means for securing and preserving liberty as a whole" whereby the librarian's "task is not merely to *satisfy* the requirements of the thinker ... He has the more fundamental task of helping *create* such thinkers and students" (p.13). In which statement it is possible to discern the ghost-like outline of democratic freedom once again making a visitation to the professional identity of the librarian.

Shera has also described, akin to Broadfield, the primary role of the librarian as being "a missionary of the human mind" (Shera 1972: 247) and it is worth looking to the definition of Curtis Wright, which maps here to Shera's theory-of-human-mind description, as Curtis Wright states that "whereas librarianship can be studied ... as an existential object" or as "social phenomenon, its nature can best be studied, perhaps, as an integral part of the larger study of the nature of man which contains it" (Wright 1978: 10).

This aspect of librarianship, which suggests a centrality of a *dynamic* and *relational* requirement, in librarians socially engaging in, and facilitating, the interaction between both humans as individual 'minds' and as group mind-entity – which Boulding has described as the "noosphere" (Boulding and Senesh 1983: 1) – is common, with Ronald Staveley's assertion (Staveley 1964: 17)[4] in a section titled 'On Subjects' – which directly follows on from a first essay entitled 'On Libraries and People' – that "[w]e see persons in dynamic relationships, achieving things, making mistakes, reflecting, deciding and consummating thought and decision in purposive action. We see creation and also destruction, not simple animal adaptation. We say that all this is involved in history. Organic development, yes; but personal action too" (p. 17).

Thompson meanwhile appears to wrap these elements of *relation* and *dynamics* into his three-tiered librarianship analysis, where "[t]hree competing roles for the librarian may be posed: custodian, mediator and organiser ... Perhaps the librarian of the future will have an even more dynamic role as organizer, although the French word 'animateur' probably describes it better. He will go out into the field, creating relationships, activities or groups which did not occur spontaneously but which will enable the library to benefit all sections of the public" (Thompson 1974: 41).

Here, alongside the concepts of 'use', it is possible to locate further conceptual elements at play, most notably the idea of how librarians have an ongoing and fluid *relationship* with *people* who as a group then form a *society* – also often represented in these librarian and library discourses by a use of the term the 'public'. Broadfield's notions of librarianship's philosophy are useful to return to here as they provide the potential to thereby detect a specific element of the identity of the public library and public librarianship per se, as well as the specifics of its form and matter. He writes that "[t]he philosophy of librarianship ... is ... constructed ... on the basis of the library's service to man and society's obligations to man, hence the obligation of society to the library which serves man" (Broadfield 1949: 35).

Here, then, it is possible to see the relationship that has been identified above, which is composed of the basic elements of the library and the human, with society as the group entity of the human. Now, earlier on in Broadfield's work he makes the distinction between a scholarly "collector" of books, which has been seen to be the basis of early-modern descriptions and definitions of librarians, and between the creation of a scholarly library, wherein "the end of book collecting is the formation of the scholarly library" in that "a critical point is reached when [the] ... collection emerges from the dusk of private enjoyment to the light of public importance, and a new scholarship has to be constructed round the collection as a nucleus" (Broadfield 1949: 8).

But whereas the "collector *as* collector simply collects" and "does not promote scholarship", that is he "is driven from behind by the urge to collect, not pulled from in front by an ideal of knowledge" (Broadfield 1949: 8) it can be inferred from Broadfield's helpful syllogism (which he unfortunately does not develop (p. 8)[5])that when a 'collection' is introduced *to*, and provided *for* a 'public' or society, and concomitantly in the *form* of some 'access' or 'use' that is intrinsically 'public', that it is possible to say this therefore embodies intrinsic elements pertaining to both the 'public' library and the role a public librarian in particular should play. It also provides a spectrum that is guided by the *more* or *less* emphasis placed on 'public' forms and matters of 'access' and 'use', which is effective to work with in distinguishing between the varying identities of different types of libraries and knowledge organizations, as well as librarians and information professionals.

With this useful grounding provided, it is possible to then return to the proposition of defining 'librarian identity' in the present, where it could be considered that a defining feature of a current definition is

perhaps the continuing ambivalence towards one. For instance, Lankes writes that "[f]unctional definitions of professions do not work. That is, if you seek to define the worldview of librarians by the functions they do, you will run into all sorts of problems" (Lankes 2011: 18) and he decides to neatly sidestep this issue (or as Lankes would have it, the "problem") by instead defining it through a mission statement for librarians: "The mission of librarians is to improve society through facilitating knowledge creation in their communities" (p.13).

Taking some examples of current non-traditional librarianship practice, it is in fact possible to distinguish not only some of the core aspects of what is argued here is a newly-awoken librarian identity at play, but to also demonstrate how this new identity is shaping to rise, phoenix-like, in a radical new, engaging, and engaged form: one which begins life entirely absent from the company of professional associations.

Two such recent examples are the work of Mile High Reference Desk (MHRD) and The Itinerant Poetry Library (TIPL), both self-appointed entities in the library world, set up to fulfill gaps in current services, having identified how to bridge certain gaps relating to the needs of members of the public and information provision in today's 21st century always-on-the-move, and always digitally advancing, global landscape.

The MHRD librarian "collects maps, public transport brochures, and other points of interest (when available) for destination locations" and operates on any aeroplane that the librarian finds herself on, providing a "tailored service dependent on the current flight's audience". The aim of the service is to "[p]rovide an information resource in a traditionally closed environment that doesn't have a outlet to ask questions or browse materials users can borrow and return, not purchase" and to "pose to the public a re-definition of [the] commonly used term and outdated concept of ' library' = not just books, and not just a place you visit."

Also citing the desire to "[h]ave a library in unexpected spaces", this specific philosophy of library service and identity is matched by the main objective of TIPL which has been operating since 2006 with the aim of "reaching the parts other libraries have yet to reach", since then providing library services, and the services of a librarian, to the far flung corners of 12 countries, 32 cities and in more than 200+ locations worldwide. That some of these locations have included a boat, beach-hut, senior citizen retirement home and cocktail bar; which the sky-high example of MHRD's services similarly matches in reaching

out to distinct but neglected potential participants, perhaps demonstrates the vision of these newly original purveyors of librarianship as keen to explore the possibilities that this new world of mobility – of digital services, connectivity, and people themselves, now offers the world of the librarian.

It is also demonstrative of these new, non-traditional library services that they are predominantly interested in ' socially engaging', reaching out to the community quite literally by going to the places where this increasingly mobile community is directly located, rather than waiting for it to come to them. This is a ' librarian identity' firmly dynamic and relationally-oriented, interested in the personal, one-to-one engagement, comfortable with an experimental praxis that seeks to not only help but challenge expectations of potential users, viewing them as participants, not audience members, in the knowledge seeking environment.

Constitutive of these aims is in fact a return to what Buschman correctly identifies as democratic theory, and the 'necessity' of freedom of knowledge, which Irwin posits as a central frame of reference for librarianship's profession. This will toward 'proactive' rather than 'reactive' stances in this arena is in fact in evidence in the mind and desires, if not yet the collective Association actions, of the librarians and information professionals interviewed and surveyed as part of the aforementioned CILIP report, which states that "an oppressive regime with few voices arguing for the rights of the humble information user" has arguably been the trend to date, with "[t]hose in the knowledge and information domain believ[ing] that this is a role a professional membership organisation should be playing" (CILIP 2010: 18).

That today's 'librarian identity' is a contested arena, apparently caught up in a values-war between traditional principles of 'democracy', 'citizenship' and late twentieth century's shift to a democracy of individuals modeled as consumers, rather than users, is perhaps the key to why new professionals may be wary of associating with established systems of their own professional hierarchies. When such Associations may be perceived as not having paid enough attention to how this shift in values has been effected, and when association members "believe there is a strong need (and a current gap) in campaigning for the issues affecting the domain and its end-users", perceiving that in fact "[a] body is needed to campaign and lobby for the rights of users in the battle against the copyright giants . . . [while] [f]urthermore, a gap exists for an organisation to promote the case for the 'social capital model'"(CILIP 2010: 20) it therefore seems unlikely to be resolved by maintaining a status quo provision which apes private enterprise, and its

ideas surrounding the needs of the 'customer'. Rather, it seems clear that what in fact will engage both users and new professionals alike in libraries, their services, and professional associations, and what offers an identifiable model of 21st century librarianship (with profile-raising capacity galore) is the ability of librarians and their associated professional bodies to become 'freedom fighters'.

So, what, in effect, does it mean to call oneself a Librarian in the 21st century? Taking important cues from this historical analysis of librarianship's roots, and the pathway becomes somewhat more defined. Gather the editorial and poetically creative and imaginative skills of Callimachus; the zeal and care regards verification, and crafty collection management, of monastic scribes; the proactive, personal 'librarian helper' abilities which Ranganathan lauds; and the 'animateur' outreach antics of MHRD and TIPL into an updated toolkit that also includes information literacy expertise, together matched with, in the vision of Staveley, a deep and intimate commitment to (exploring) humanity, and a mandate for democratism in information access and provision becomes clear.

In order to reach out truly to new professionals, however, library associations must in turn be clear about their commitment to this cause: this is a serious moral and humanitarian challenge which will not be won (nor win allies) by sideline-watching, or indeed prevarication. Professional associations are needed which are willing not only to support the individuals and groups involved, but also prepared to ultimately provide real muscle. In the end, this may be a call for a consortia-led onslaught by allied stakeholders, as one of the first strategies to consider, but fundamentally library associations which are inspiring, surprising and empowering are in fact those which create, support and provide inspiration, surprise and empower themselves from the get-go. Watch that Phoenix rise!

Notes

1. The report was produced by CILIP "to understand how its market and environment is likely to adapt over the next ten years" and to "identify the likely trajectory of the knowledge and information domain, uncovering what information professionals expect of their professional association", and interviewed and surveyed library and information professionals as part of its research methodology.
2. Ranganathan is also lauded here as "the greatest information scientist the world has seen in the twentieth century".
3. Broadfield is quite extensively quoted by Mai, in particular regards the contemporary relevance of his insight into the façade of the much-trumpeted library or librarian 'neutrality'.

4. Staveley uses the plural form "we" throughout the text, possibly to suggest he speaks on behalf of 'librarians', but also likely, given the title of his work, it is in fact a purposive stylistic device.

5. Regrettably he instead drifts off, somewhat awkwardly, back into a rather vague delineation of how this all applies to determining the philosophy of librarianship, using his rather argumentative and at times unhelpfully caustic tone, which has perhaps been the root of some of the disagreement and discordance with which his work was initially received. This style has also probably not helped to promote some of the very relevant, useful and fascinating insights he makes here in the work.

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Form@doct: Designing innovative online tutorials for PhD students in France

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Abstract
At a time when information literacy is a growing subject in doctoral programs, it appears necessary to assess the benefits of online education in this field and its suitability for PhD students, considering their specific working conditions and learning methods. The purpose of this communication is fourfold: to show how Form@doct, an online portal for PhD students, uses its resources to respond to this need, to describe the challenges faced in e-learning, to explain the final structure that learning content, general architecture and online teaching could take and to assess, by a first analysis, whether the use made of this portal validates our approach.

Keywords
online education, information literacy, e-learning, doctoral students, online tutorials, Form@doct

Introduction

What does e-learning offer for the development of information literacy? This question is particularly appreciable at the PhD level, which, because it is very specific, focuses, illustrates and clarifies issues arising from the meeting of online learning and information literacy.

While the training of PhD students in information literacy has acquired recognition and legitimacy, and is increasingly deeply rooted in university policies, it nevertheless brings together a number of burning issues, all of which are challenges to be faced when taking educational initiatives for doctoral students.

Indeed, within the current landscape of information literacy in higher education, the case of doctoral programs differs in that it generates alternatives and tensions concerning both the learning content and the teaching methods to be used. The question of how to develop information skills or even scientific information literacy in PhD students primarily concerns what learning content should be focused on and how one should go about transferring this content to the students; in other words, the means of learning and knowledge transmission. It notably leads us to ask whether an online training system would be an asset for PhD students, how an innovative tool could be developed to respond to the specific expectations of such an audience, and under what conditions such a system would be practically possible and relevant. We need to know how far we can go: what educational approach can be used, from online content to distance learning, but also what content can be taught in this way: it is also necessary to ask what scope we could settle upon, to go beyond information retrieval

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and reference management coaching and to best assist the students in their research.

These questions are at the very core of Form@doct, an online tutorial developed specifically for PhD students by a group initiative originally started by the academic libraries of Brittany and Rennes URFIST[1]. The idea was launched in late 2006 and its result is a free educational website[2], published by the European University of Brittany for its PhD students[3].

We will first give a description and history of the tutorial, as this can be instructive for two reasons. First, presenting Form@doct in this way allows us to draw a profile of the tool and to analyse the originality of its responses to the challenges posed (i) by the training of doctoral students and (ii) by working with limited human and logistic resources. This will show how the choices made in terms of content, structure, access, interactivity and pedagogy aimed to meet the needs of the targeted students. At the same time, although the tutorial is still very new, we will attempt to make an analysis of how PhD students have appropriated the tool and its resources, and finally, of whether the guidelines initially provided correspond to real practices. In doing so, we can also implicitly show how the initial idea has progressed and changed from its early versions to its final form, attesting the richness of a collective and reflexive, evolving process.

The initial distance learning objective

Opportunities in the institutional context

Form@doct was born from the needs of four SCD (Common Documentation Services) of universities in Brittany (Rennes 1, Rennes 2, Brest and Lorient), together with the INSA (Rennes) and ENIB libraries[4], to promote a set of joint projects within the 4-year development contracts of the universities. These included a tutorial intended to support existing library courses for PhD students by providing an online learning service. The Library of the University of Western Brittany (UBO) in Brest, the project coordinator, called upon the URFIST (Regional Department for Scientific and Technical Information Training) to co-develop this tutorial, based on work drafted by a team of teachers from all the libraries involved.

The project fitted into the overall context of rapid e-learning development occurring in higher education, where many different programs are taking off via digital campuses and virtual universities (Balancier, 2006). Moreover, at the regional level, a PRES[5] was being set up in Brittany and the doctoral schools reorganized, sometimes giving birth to cross-university entities. Very soon, it became clear that the right scale

for this pooling project was the PRES of the European University of Brittany (UEB), which had just been created and whose International Doctoral College decided later to integrate and support the project submitted within this framework.

Goals and framework

In order to foster PhD students' understanding of the emerging issues and practices of scientific research, Form@doct aims to provide three levels of education: (i) to promote an expert use of information, (ii) to develop the knowledge and learning needed to produce, format and disseminate research results, and (iii) to improve scientific information literacy. Torras i Calvo (2011), following Zurkowski[6], referred to the "information literacy necessary to scholars", showing that this question is present in the recommendations for the comprehensive framework of qualifications in European higher education. Furthermore, this issue is at the centre of a series of recent research studies, much of which highlights the specific profile of PhD students and recommends to "integrate information literacy training into the programs and existing research groups, while providing individual training suited to more occasional needs". The concept has been disseminated increasingly in university education and gradually in research (Webber, 2010). In the evolution from information literacy to information culture, training goes "from occasional to regular use, consisting of: access and information processing, rational use of information, and integration into 'general knowledge' and social practices" (Simonnot, 2009).

To achieve its objectives, the Form@doct project sought to rely on e-learning resources. The term 'e-learning' is quite difficult to define. Although an exact meaning was given by the European Commission in 2000[7], and in French higher education it commonly refers to the use of Internet for educational purposes, in reality it encompasses a very broad range of meanings. Nevertheless, it is possible to differentiate between two key dimensions that this word integrates and combines: the first being online/offline learning, with synchronous/asynchronous communication, and the second being independent/collaborative learning. These two dimensions may involve different proportions of mixing between face-to-face classes and distance learning (Fenouillet and Déro, 2006); interaction plays a key role in this process. We will look at how Form@doct initiates learning processes through these dimensions and how it has followed the development principles of web tutorials for information literacy.

The specificities and needs of the target audience

Developing an online tutorial adapted to the specific needs of PhD students is simultaneously a driving force, an immense challenge and a difficult task. PhD students were specifically chosen for two main reasons. First, it had become clear that new training needs had emerged from the current methods of production and dissemination of scientific information in the context of digital technology and of Internet. Secondly, although methodology courses were already quite numerous, homogeneous and well-suited to the bachelor degree level, this was not so much the case for Master or PhD levels, where there was a patchy coverage of needs in terms of information training, and a fairly large disparity could be seen. We had already been working for a number of years on joint initiatives with the doctoral schools in order to establish face-to-face training course sessions for PhD students. These ongoing considerations and the existing training seemed to be a good foundation from which to launch the Form@doct project.

When we reflected on the most suitable approach, the idea of an online tutorial, parallel and complementary to the face-to-face courses, appeared to be the best because of the specificities of the PhD student audience. The students may come from different towns, regions and countries, and the doctoral school may combine different universities, all of which make them a very mobile category of students. In addition, their research activities imply travel and a heavy workload, leading to variable availability for training and an obvious need to save time. This group is also fairly heterogeneous, having different levels of skills, acquired knowledge that can be very uneven and, sometimes, very different expectations. However, they all have strong backgrounds in their disciplines and a high level of autonomy in their research. Many of them also express the need for personalized and interactive training that would combine theoretical and practical learning, in-depth exploration of the scientific and technical information field and occasional and targeted practicals.

In this context, a flexible multi-level scheme seems an appropriate response to the working methods of doctoral students and the requirements of PhD level, as this would promote the autonomous, asynchronous acquisition of knowledge, as well as personalized training. Such a scheme would extend university courses with a distance learning system based on the learning of the concepts, skills and know-how, leading to the scientific information literacy necessary for their research. It would meet the need, according to Torras i Calvo (2011), "to come to PhD students where they are, which is to say online". Furthermore, it would create a balance between, on the one hand, individualization and adaptability to the needs of the audience (using the concepts of sequencing, modularization and granularization), and, on the other hand, socialization, offering a relational dimension and interaction with tutors and peers (Vayre, 2007; Deschryver, 2009).

Preliminary exploration of existing tutorials for PhD students showed that there were already tutorials adapted to the PhD level in France, often addressing one or more specific issues. We did not want to compete with such tutorials about scientific and technical information, but instead chose to focus on a specific area of added value, while also referring to external resources.

In 2007–2008, a survey[8] was carried out among PhD students to find out about their research methods and training needs concerning scientific information. Five hundred and nineteen usable questionnaires were counted, representing almost a quarter of the population of interest. The results showed that the research methods of the PhD students generally remained rather traditional and localized, and that their ways of finding information on the web were quite similar to those of other students (predominant use of Google). They also showed that doctoral students were relatively unfamiliar with new tools of research, information processing and dissemination and seemed to know little about new methods of production, circulation and dissemination of scientific research. The questionnaire also asked PhD students about their training needs, especially about what subjects they would like training and the distance learning services to cover[9]. The survey data helped us to define the training that would be provided on Form@doct.

From self-study to e-learning[10]

The initial structure of the Form@doct tutorial relied on the coordination of three schemes that interacted with one other: a free-access self-study tutorial on the web, a regional portal for PhD students in Brittany universities, and a scheme of open and distance learning for these students. The self-study tutorial was envisioned from the beginning to provide free and open access to a body of synthesis files on scientific information themes. It took the form of a series of thematic guides.

The second level of Form@doct was intended to grant access to specific information, a set of specialized disciplinary resources, tools for communication

and collaborative work for identified users. The objective was also to make individualized discipline-specific reading possible. These first two levels were finally fused into one.

The third level of the structure was specific to e-learning: it was based on a free open training website, which PhD students taking classroom-based courses could access if they wanted help with certain tasks (gathering information, making a bibliography, etc.).

However, from the beginning, the project faced three major challenges: (i) combining and coordinating different approaches to teaching content within the same scheme, (ii) promoting a system of distance training and e-learning without necessarily having the resources, and (iii) taking into account the necessary link between distance and classroom learning.

Choosing suitable content for distance education at the doctoral level

For self-study, Form@doct currently offers a collection of freely available guides[11] via the LibGuides platform[12]. The survey conducted prior to the project helped to define the shape the learning resource would take, but also raised several issues related to the scope and profile of its content.

Aiming to provide comprehensive or targeted content

As mentioned above, the initial investigations on existing tutorials revealed educational resources addressing specific methodological aspects, but found at that time very few tutorials covering all the potential learning contents relevant to PhD level. Therefore, development of a comprehensive tutorial could be a particularly important and original challenge for the training of doctoral students.

It was decided to create an overall body of content addressing all the topics that a student is required to master, incorporating the latest developments of the web, and taking into account the recent changes in research practice and dissemination of science. From this perspective, it is not a case of referring to information science or documentation, but of taking the point of view of PhD students in order to deal with selected subjects. We needed to counterbalance the tendency toward an encyclopaedic overview by paying continuous attention to the viewpoint of doctoral research. The content of Form@doct is organized into four broad thematic areas, corresponding to the steps and actions carried out by students throughout their research work: Retrieving, Managing, Producing/Publishing, and Getting to know scientific information. Within this framework, syntheses are proposed on various subjects such as
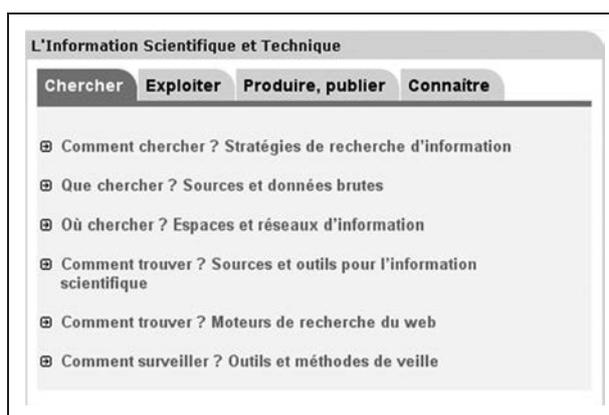
Figure 1. Information available in *Form@doc.*

intellectual property, bibliometrics, information monitoring, structuring a thesis, or methods of scientific publication.

Theoretical knowledge and practical learning

The second alternative in the design of a tutorial is the comparison of theoretical learning content and practical learning items, in other words, content aimed at acquiring general information literacy versus content focused on mastering procedural skills. With Form@doct, this question has already been discussed. The complexities surrounding doctoral education and the characteristics of learners seeking both theoretical knowledge and practical guides make the exercise even more difficult. The concept of information literacy itself may refer to different things: there is no natural consensus among the teachers themselves on what should make up a distance learning course or an online tutorial on information literacy for PhD students. Should a platform offer an ensemble of cultural knowledge or a toolbox-like resource that comes with an instruction manual? This tension of the potential content was ultimately very productive, as it made Form@doct evolve as a hybrid system, integrating essential knowledge and practical applied learning. Integration was achieved in two ways: some of the available guides are explicitly based on theoretical knowledge; others are clearly practical and targeted. In addition, within a guide, content can be mixed: a guide dealing with social bookmarking provides the opportunity to cover the concepts of taxonomy and folksonomy and also to show how to use bookmarking tools. Consequently, Form@doct offers concepts, skills and know-how about scientific information for PhD students in two dimensions: to be able to fulfil a targeted, tangible request for information, but also a need for deeper understanding over the long-term.

Dominance of discipline vs. a transversal approach

Tension between the disciplinary field and cross-cutting content is a problem well-known to teachers of information literacy. This was expressed by Serres (2009), in the following terms: "What are the strictly information/documentation skills, knowledge and concepts present in any intellectual work from any discipline? To what extent is it possible, for example, to isolate the information skills from a research project in history, biology or economic studies?" In the book based on the ENSSIB / URFIST conference on training PhD students in Scientific and Technical Information, we also raised the issue of the relation between the training content in specialized fields of research and the common content on scientific information (Malingre and Serres, 2011). This question points towards the comparison of two approaches: one making documentary learning dependent on discipline, and the other emphasizing the autonomy of information knowledge and the concept of information literacy.

The Form@doct project had to face this dividing line because the notion of different disciplines is particularly strong at the doctoral level and the field of research is primarily defined and rooted in a discipline. The question here is whether there can be a common form of information literacy shared by PhD students, regardless of their discipline. Should an online tutorial for PhD students be based on the assumption that they all have the same core of multi-field general knowledge, extended by disciplinary specificities, or should each discipline have its own information base? Given the great diversity and high level of specialization required by different disciplines, Form@doct offers an answer that favours acquisition of an organized ensemble of transversal knowledge, common to all PhD students, as a link between the different disciplines and basis for work in the different disciplinary areas. However, it is quite clear that needs of students in terms of information, resources, tools, and training requirements vary from one discipline to another. The initial intention, which was to give parallel access to the content of Form@doct choosing a disciplinary area and to provide discipline-specific paths through the tutorial, was too complex to put into action. Finally, a compromise was found whereby it was decided to insert additional disciplinary items within the guides and their associated resources, when relevant.

These choices needed to be explained and their importance underlined for the design of the Form@doct teaching tools, because they run throughout its entire structure.

Appropriateness of the general architecture and access to content

How can we organize learning content and implement distance education, incorporating the differing, and sometimes contradictory, requirements of doctoral training for teaching content? The structure and the overall architecture of Form@doct were designed to achieve this, as have the separate and parallel modes of access to its content. With the aim of providing a resource suited to the practices and expectations of PhD students in terms of access and reading, the staging of content is built on the coexistence of three main principles: prioritization, fragmentation and granularity.

Prioritizing content

Reflection and debate on how to provide better guidance towards the information in the tutorial led to several patterns of structure and access for different needs and practices. The first model consists of the organization of content in a three-level tree, adhering to the documentary principles of classification. Entry is made via the four axes defined above: Retrieve, Manage, Produce/Publish, Getting to know scientific information. Each axis is broken down into a set of themes, which themselves lead to a series of guides, for example in the axis 'Produce/Publish', under the theme 'Write, publish and disseminate your work', one finds the guide 'Publishing an article in a scientific journal'. The guides have a stable and homogeneous structure: an introductory page with a definition and an initial approach to the subject, together with a lexicon, pages for further study, a page with resources and tools, and finally a page with bibliography and webography. The tree, which can be seen on the home page of Form@doct, makes it possible to use the resources based on the major operations performed on information. It corresponds to an exploratory approach, to a need to get to know a subject both in general and in depth and represents one of the main ways of accessing the tutorial.

Content breakdown

The discussion also focused on the ability to respond directly to a targeted, immediate need, which is often something doctoral students ask for in training resources. The choice of the Content Management System (CMS) LibGuides as a web support for the tutorial proved decisive in this regard, as it is coupled to the LibAnswers FAQ system[13]. Indeed, this system enables an alternative mode of access to the content of Form@doct, which is divided up and distributed so as

to provide specific answers to a selection of predefined questions. The questions are entered by the teachers into LibAnswers and the answers are extracted from the guides or, where necessary, written separately with reference to the relevant guide for more information. This breaks down the content of Form@doct for reading.

The collection of Form@doct guides is not, in itself, a tool that presents content to be read linearly. Any doctoral student can use it as they wish: find their own course through the tutorial, at their own pace and without necessarily having an order of priority in their learning. The guides echo each other via a system of links and weave a network of connections through the content. What is true for the guides as a whole is also the case at lower levels: within the guides themselves, guide content is distributed between tabs corresponding to all items studied, and, for each tab, it is then distributed between specific boxes on the page. This also reflects the breakdown of content and fragmented structure, which promote targeted learning. The final element making up the learning tool is a lexicon, which is spread between the different guides rather than appearing as a single overall unit. This approach was chosen to put this content in its context in a way that would improve teaching effectiveness and knowledge acquisition.

Granularity

The break-down of content gives easier access on very fine and well-identified scales of content.

The FAQ is the clearest illustration of this. It is based on the fact that PhD students often have very specific questions, so they need rapid, focused and direct answers. To meet this demand, the FAQ seemed to be a proper solution. The principle, as mentioned above, is to define a series of questions for each guide and to identify and select the paragraphs of the guides containing the relevant responses, rewording if necessary. The student users who enter a term will see all the questions containing that term displayed by autofill. They can then choose a question and be taken right to the answer and to a link to the relevant guide or parts of this guide.

Also, the organization of the guides with the LibGuides system allows detail in the structure and presentation of the information. The smallest unit of content within each page of a guide accessed by the tabs consists of the 'box', which is a block of specific content that favours both a thematic approach to a subject and a break-down of the content to facilitate selective reading.

As for the lexicon, it is no longer an independent overall tool in parallel with the rest of the content, its distribution among the different guides provides access to the concepts at a second level of scale, in close interaction with the guide and its theme. Thus, the PhD student can immediately see the concepts related to the topic and define field of ideas precisely.

Multiple methods of access for multiple uses

There are multiple ways of accessing the content of Form@doct, and the diversity of means of access is the best way of ensuring that the system adequately reflects the diverse working methods of doctoral students and the different manners in which they learn, without imposing a single dominant method of use.

The following paragraphs emphasize the role and influence of the tool and the technical solution in the profile and evolution of the educational product, considering the shifts of the project that resulted from specific ergonomics of LibGuides and from the presence of features helping the users to get started easily with the tutorial.

On the home page of Form@doct, four main types of access are available: the tree structure, the FAQ, the search engine and the tag cloud.

Searching in the Questions and Answers is intuitive and direct and can be accessed in three ways: a word query displays a predefined list of appropriate questions to guide the user towards targeted answers, which are extracted from the guides; access to the FAQ is also done through themes; it is also possible to display the 10 most consulted questions. In addition to this type of access, the tutorial offers access by query in the search engine, which, in return, displays a list of guides and relevant guide chapters. Browsing the tree is the third main method of accessing the content, favouring a different approach that has the advantage of giving the user an overall view of exactly what is covered by the selected topics, and delimiting fields and concepts, connected with techniques and tools (e.g. alerts / feeds). The educational aim here is to extend *de facto* the field of knowledge, by locating and linking elements within the given framework. Finally, access by tags is possible either on the home page, which displays the main tags, or after first selecting the complete list of tags.

The interface still allows for various other possible navigation methods within the guides. Moreover, it simplifies both researching in an accurate guide and browsing from a guide to another. The objectives are to multiply the potential paths to the information, to offer easier navigation through the tutorial and to adapt to different user approaches.

Figure 2. Access: (1) the content tree structure, (2) the FAQ, (3) the search engine, (4) the tags.

Renegotiating educational strategy

Putting e-learning into action

Although Form@doct, following its objectives, has provided a platform for self-training that offers both general and discipline-specific learning content, resources and specialized tools, its top level, namely its tutored part, has raised more difficulties and questions. The initial aim was to test a targeted system of individualized support, parallel to the 'self service' training, available only to doctoral students from the universities of Brittany who participate in methodological training, and intended to support classroom teaching.

Because human resources were insufficient to undertake a regular and systematic accompaniment, even with limited scope, the idea of personal tutoring was given up. Under these conditions, we need to ask how a remote audience can be managed without the appropriate resources; how the goal of distance teaching be achieved despite this constraint and which intermediaries, machines or organizations would be needed to support distance education.

Two answers have already been given to these questions: the first would involve the multiplication and enrichment of training and online information materials; the second considers the alternative development of online interactivity with the users of the tutorial and maintenance of a close link with classroom training.

Diversifying the range of educational methods to better help the student

In Form@doct, both the multiplicity of access methods, described above, and the multiplicity of teaching resources, was conceived as a way to strengthen learning support in the absence of a real tutoring resource. The uploading of rich content, with text, image, video (68 boxes with embedded media, slide shows, videos, podcasts . . .) and the diversification of teaching scenarios are all used as means to consolidate understanding and assimilation of content. Several approaches were tested, the most obvious being the illustration of texts by different kinds of images, such as diagrams, tables, explanatory figures,

Figure 3. A Form@doct guide.

screenshots, and internal or external slideshows. Form@doct contains a wide variety of data types: media files, resource lists, RSS feed boxes...

Two other possibilities were tested: videos and radio broadcasts. Video clips are used as a support to textual learning content, to clarify different aspects or expand on a particular part of the theme discussed. The editors of the guides were trained to carry out screencasts, and the capacity to embed external videos under a Creative Commons license is also exploited. Some videos from YouTube can be directly integrated onto Form@doct, depending on their licence conditions. Screencasts in the tutorial are used to present targeted procedures, such the use of Zotero or EndNote, but could also possibly be used for more general presentations. These are a way for teachers to extend the classroom lessons, guiding PhD students by linking oral explanations and demonstrations on screen. Educational uses of video extend to the recording of scientific conferences and other events of interest to doctoral students.

The second media considered was that of radio. The European University of Brittany offers a 'wiki radio' on its website[14]. Following a first interview on Form@doct project, the idea was launched to produce a short series of radio programmes on various topics covered in the tutorial. These radio programmes, lasting a maximum of two or three minutes, are podcasted and offer the opportunity of listening later or repeatedly[15]. They are based on a script that consists of a dialogue in the form of questions and answers between a 'novice' and an 'expert'. This pedagogic method seemed particularly well adapted to the specific characteristics of a mobile audience, receptive to the immediacy and ease of learning: indeed, it allows for a rapid and dynamic synthesis in a few specific points on a chosen topic, it promotes remote and personalized use, with audio file retrieval by PhD students who integrate this content into their personal tools.

Interactivity, or management of a remote audience without sufficient human resources

Setting up interactive services is an essential means for Form@doct to build a support system for doctoral students and a way to help establish the student-teacher relationship. It facilitates the involvement of PhD students and becomes the medium through which internet-based distance learning can be developed:

"Interactivity in online education makes the difference between an information source and a learning experience" (Dewald, 2000).

The choice of the technical approach is often vital and is closely linked to the definition of an online tutorial. In the case of Form@doct, deciding the features to be developed and the exploration of potentially suitable applications are processes that have evolved together. LibGuides ultimately appeared to be the system that provided the closest solution to what was needed for Form@doct. Julien Sicot, at the ENSSIB / URFIST conference,[16] referred to this application as lying between a Content Management System and Learning Management System, enabling many academic libraries to tailor thematic guides to their audiences (Sicot, 2010). It has many benefits for online learning, particularly in relation to the level of autonomy and customization that are specific to the doctoral program; it fully exploits the possibilities of Web 2.0 and has a strong capacity to integrate external tools and resources.

A first set of features relates to various ways of using the content: the students may, for example, subscribe to the RSS feeds of the page, the guide, the author or the entire site and be directly informed of any content update. They can use the widgets offered by the guides (including search widgets) and also share and disseminate information to many different platforms: social networks, sharing platforms, blogs, etc.

The ability to post comments is the second means of interactivity: the Comments link is displayed on each guide and in each box of content; it gives access to a window where the students can specify a topic and write their comment. The students can hence leave their responses either throughout the guide, or on a specific aspect of a theme being dealt with. The author of the guide receives the comment directly and can respond by email or via the guide page. Survey boxes are also available. The students can go further and interact directly with the content: first, as the LibGuides interface allows a user to submit links and suggest resources; and second, as the LibAnswers FAQ interface allows students to ask their own questions, so that these can be answered on Form@doct.

The third means of interaction is the chat. For each guide, a box with specific content shows the name of the author in charge of the guide and his profile information. It also allows direct contact to be made for assistance on the issues addressed by the guide. The principle is to establish a link between the student and contact teacher according to theme.

Finally, an evaluation questionnaire was developed on Form@doct itself, designed to obtain feedback on content, learning methods and services available. However, other methods of monitoring and interaction still need to be found to strengthen the relationship with PhD students and develop a regular and sustainable use of the tutorial.

Good coordination between face-to-face and distance learning

One characteristic of Form@doct is the close link between cross-disciplinary documentary training for PhD students in UEB institutions and distance teaching via the tutorial. This link gives the resource a solid base and overall consistency and stability. Classroom training is extended and echoed by its application content and services available in the distance-learning resource. Reference to Form@doct is always made during the face-to-face teaching sessions. The tutorial also includes the presentation and the description of classroom training[17] and related educational resources. Additionally, ongoing reflection is examining the opportunities to provide webinars in the future, which could boost educational support and assistance. Everything has been designed so that Form@doct can be a reference resource for doctoral training that can establish a continuity between face-to-face teaching and distance learning. Rather than being strictly an e-learning system, Form@doct therefore takes more the form of a multifaceted training system: a platform through which to implement different teaching methods, which are linked to each other and interact to create a working environment that a PhD student can tap into as needed.

First conclusions on the uses of Form@doct

Form@doct was published as a test in 2010, and was officially launched in December of the same year, at the beginning of the doctoral year. After nearly one and a half years of existence, it is possible to draw some conclusions about the use of this tutorial, to identify useful points about the use that the PhD students make of it, and to see how well the mechanisms on the site are suited to their ways of working and learning.

The shortness of the time period and lack of hindsight make this relatively difficult and the means of a systematic evaluation have not yet been developed. However, the available tools, in particular the LibGuides and Google Analytics statistics, in addition to the on-site tools for interaction with users, can perhaps lead us to an initial conclusion.
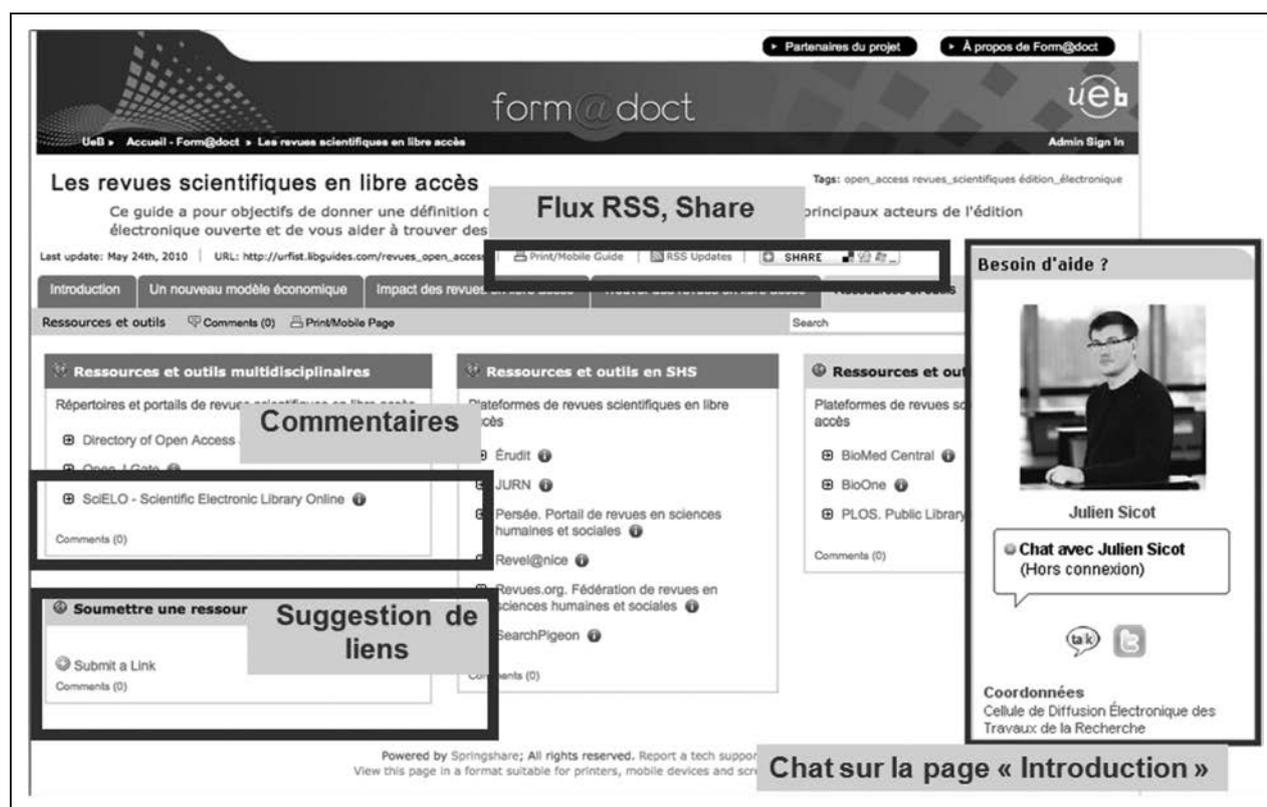
Figure 4. Interaction with a Form@doct guide.

What uses are the guides being put to?

Besides the guides that provide information about the doctoral classroom training, Form@doct presently includes about 40 thematic guides. The statistics given by LibGuides indicate 15,294 consultations of the guides in 2010, 46,898 in 2011 and 27,079 from 1 January to 4 May 2012, giving a total of 89,271 consultations. This represents a substantial figure, with a steady improvement over the period of reference. Interpretations should be made with caution because these figures indicate neither the profile nor the status of the users. It seems that, ever since its launch, Form@doct has attracted interest and curiosity and all of the guides have been consulted (the home page of Form@doct has itself been viewed 37,926 times).

We were interested to know which themes had been used the most since the official launching of the tutorial. An initial assessment indicates that the figures remained remarkably stable between 2011 and 2012 for the four most popular guides. The principal themes were the same in both years: first, 'The thesis: norms and forms'; then, in second or third position, 'Build a strategy for information searching' and 'Software for managing bibliographic references'; and, finally, 'The thesis: plan and parts'. In 2012, the recently added guide on Zotero bibliographic software made its appearance on the list. These choices reveal the true immediate needs of doctoral students.

However, the list of the 20 most consulted guides shows that all four axes of Form@doct are in fact viewed in quite a homogeneous way. The question of Science 2.0 also has a high profile (guides about RSS feeds, social networks of researchers, scientist's blogosphere, sharing platforms, etc.), and the theme of open access also appears in the sample group. The legal questions concerning intellectual property tend to attract the student's attention less, except when the title of the guide clearly refers to the rights of the researchers and to the dissemination of the thesis.

In addition, while the pages concerning doctoral classroom training are also frequently viewed, there was marked interest (770 consultations on 4 May 2012) for the guide about a study morning in February 2012 on "e-science, digital humanities ... what are the evolutions of the scientific practices of research"[18].

Statistics from Google Analytics show similar results for the most frequently consulted pages. They give some further indications, especially for access to the content, predominantly resulting from the consultation of the four thematic axes and from a review of the list of the guides by subject.

Use of the FAQ

At the end of the first quarter of 2012, the Form@doct FAQ contained 195 questions with their answers and

links to the corresponding guides, but we asked ourselves whether this resource was being used. Following the initial starting up period, viewing figures seem to indicate a gradual adoption of the question – answer system to reach precise, targeted information items. In seven months (August 2011–March 2012) there were 9361 views of the FAQ. The FAQ is therefore becoming a means of access to the content of Form@doct like the others.

Managing interactivity

Form@doct users can directly interact with the interface in two main ways: (i) by suggesting further resources for the guides and (ii) by submitting their own questions to the FAQ system if their searches are unsuccessful. How do PhD students use these opportunities? Concerning the enrichment of the guides, PhD students proposed 32 complementary web resources under the heading 'Resources and Tools', which is available in each guide. Moreover, 301 queries were submitted to the FAQ system between September 2011 and March 2012. While most of these queries already had answers available on Form@doct, a small number of relevant questions were not yet covered on the site. The low values of these figures illustrate the scale of the work that remains to be done to integrate the users more completely and allow them to play a true role in this stage of the educational process. Both the suggestion of resources and submission of questions are interesting ways to support PhD students in their learning approach, especially in the absence of real coaching: the submission of resources, because of the disciplinary expertise of the students and their strengthened involvement in the tutorial; and the submission of questions to the FAQ system, because it allows the learning content to be adjusted, the learning process to be customized and a link to be made between the author of a guide and the PhD student.

Feedback also includes the reactions, remarks and suggestions communicated via comments posted on the guides. Finally, the facilities for chat with the author of a guide are another means for interaction; however, this use has only been occasionally tested and is still too rare for us to draw conclusions.

Evaluation of the tutorial

Form@doct offers an online evaluation tool that lets users leave feedback on the content as well as on access and navigation methods, ergonomics, features and services. However, we will have to wait for a significant number of questionnaires to be returned to gain anything more than a general idea and to

precisely analyze the impact of the learning tools offered by the tutorial, although responses are quite positive with regard to the different criteria[19]. The integration and the dissemination of Form@doct in its institutional context, especially through classroom training, make it both possible and necessary to re-evaluate this resource; this should be done in the more formal framework of the next sessions of transversal doctoral training.

Conclusion: a flexible process of evolution

The first step has clearly been accomplished. Form@doct is a recognized tool, supported and valued by its institutional environment. Its use is increasing and goes beyond its initial audience, as statistics from Google Analytics show use not only in several French-speaking countries, but also in the United States and Spain. Moreover a recent proposition of translation has been made by the University of Granada. Its dissemination has been strengthened and it can now be consulted by mobile phone. In addition, it is at the centre of a doctoral training harmonization project in Brittany. Finally, the idea of adding webinars to complete the present Form@doct resource is a further potential task for the evolution and the reinforcement of its e-learning methods. The originality of Form@doct is that it is a consistently-changing resource, in perpetual renegotiation: first of all because its objective of comprehensiveness predisposes it to constantly expand its perimeters and to closely follow the evolutions of the field covered; secondly because of the numerous challenges to which it is exposed, there is the requirement to adapt to the needs and special features of its targeted public, the necessity of an increased involvement of the PhD students in the resource, and beyond the process of self-study, the research for satisfactory and feasible solutions for student tutoring, for direct contact with PhD students to improve the monitoring of their learning. Form@doct is a tool that is both technical and organizational, whose own dynamics can be combined with the aims of flexibility, adaptability and multimodality that make it hopefully attractive to young researchers.

Notes

1. Regional Department for Scientific and Technical Information Training, Brittany and Pays de la Loire.
2. http://guides-formadoct.ueb.eu/
3. The PRES (Higher Education and Research Cluster) UEB (European University of Brittany), established in 2007, brings together higher education and research institutions in Brittany, and supports their group projects

and sharing strategies; it has about 3000 doctoral students in eight doctoral schools.

4. Rennes National Institute of Applied Science and Brest National Engineering School.

5. Pôle de Recherche et d'Enseignement Supérieur: Higher Education and Research Cluster.

6. This expression was attributed to Zurkowski in 1989 by the American Library Association.

7. "Use of new multimedia technologies and the Internet to improve the quality of learning by facilitating access to resources and services, as well as remote exchanges and collaboration" (Kennel, 2011).

8. URFIST of Brittany and Pays de la Loire, University of Western Brittany Library. *Enquête sur les besoins de formation des doctorants à la maîtrise de l'information scientifique dans les écoles doctorales de Bretagne : analyse et synthèse des résultats.* [Online]. Rennes: European University of Brittany, 2008.

9. http://www.sites.univ-rennes2.fr/urfist/sites/default/files/Synthese_Enquete_SCD-URFIST.pdf

10. The chosen training themes focused on information retrieval, then analysis and exploitation of information, its production and publication, and knowledge of scientific information. The services desired were mainly selections of resources, information files and information gathering activities for personal projects.

11. An open distance-learning platform.

12. http://guides-formadoct.ueb.eu/

13. By the SpringShare Company: see http://www.springshare.com/libguides/ and http://libguides.com

14. 2 http://www.springshare.com/libanswers/

15. http://ueb.saooti.com

16. Examples of Radio programmes: *"Les revues en libre accès, quelle qualité scientifique* ?" What is the scientific quality of open access journals? http://guides-formadoct.ueb.eu/content.php?pid=97583&sid=731257

17. Sicot Julien. "Quelle solution technique pour un tutoriel de formation à l'IST ? L'exemple de Form@doct". [on line]. In *Les doctorants et l'information scientifique, 3 et 4 juin 2010 10es Rencontres FORMIST, 3e journée d'étude du réseau des URFIST*. Lyon-Villeurbanne, ENSSIB, 2010. Available at: http://www.enssib.fr/bibliotheque-numerique/document-48562

18. http://guides-formadoct.ueb.eu/content.php?pid=223224&id=1852493

19. http://guides-formadoct.ueb.eu/matinee_etude_2012

20. These criteria can contribute to estimating the quality, relevance and adaptation of the content. They can also indicate the capacity of the content to be reused and validate the choice of media, the level and the interest of interactivity and the usability of interface (orientation, access, legibility . . .).

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Libraries supporting national development goals in Namibia

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Abstract

The paper describes the strategy of the Namibia Library and Archives Service (NLAS) to transform the public/community library network. The opportunity to transform the library network emerged when the Namibian education sector received major funding to develop its strategic framework for the implementation of education sector requirements for Vision 2030, Namibia's development strategy. In 2002 the Ministry of Education invited the World Bank to assist in developing strategies that will overcome the challenges in the performance of the education sector. Although the library network is part of the mandate of the Ministry of Education, the World Bank team did not identify libraries as a critical area to be developed but recommended leaving the countrywide library network out of the education sector reform. The paper describes the strategy that NLAS applied to get the library sector accepted into the Education and Training Sector Improvement Programme (ETSIP) and to secure funding for a countrywide library sector turn-around strategy, changing the focus of public/community libraries from recreational reading to institutions supporting education, research, economic empowerment and everyday information needs.

Introduction and background

The library and information service sector has been globally recognized as a critical support structure for education, research, knowledge management, public administration, economic development, poverty eradication and knowledge-based economy (Beyond Access 2012; Britz 2007; Hamilton-Pennell 2008; IFLA 2001; Mchombu 2005; Mchombu 2008, Namhila 2011). Nevertheless, the importance of this sector is not always adequately recognized either by governments or development agencies, who seem to perceive library services as a non-essential luxury. This paper analyses the successful efforts of the Namibia Library and Archives Service to counter such notions, and to transform the library network to become part of mainstream development.

Public libraries in Namibia were historically developed during the South African colonial period as a recreational service for the white settler community.

At the time of independence in 1990, Namibia inherited 11 segregated administrative and educational systems for the various "population groups" that were defined in Proclamation AG 8 of 1980. The existing libraries fell under the Education Department of the Administration for Whites, while the ten Bantustan Administrations for the black majority were not provided with resources to develop library services.[1] Thus, under the apartheid era there were no library services for non-whites (South West Africa 1963; Tötemeyer 1991) who constituted 83 percent of the population (SA Barometer 1989: 21).

After independence in 1990 and the abolition of the apartheid system, Namibia established a new

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Figure 1 & 2. Children doing their school assignments in the Greenwell Matongo Community Library, in one of the most disadvantaged and densely populated suburbs of Windhoek. (© Maru Peltonen).

education system based on the principle of 'Education for all'. The emphasis of the education system was on redressing the inequalities created by the apartheid system with a unified system based on equality of access to educational resources for all citizens (Angula 1989; Presidential Commission 2001).

Extending library and information services to all people in the country was planned through a participatory process of several workshops held to solicit views of all partners and stakeholders (Morgenstern 1991; Tötemeyer 1993; Tötemeyer 1995; Mchombu 1998). This process led to the development of a national policy framework for libraries and "allied information agencies", fostering the principle of extending library and information services to all people in the country. This national library sector policy framework was approved by Cabinet in 1997 (Ministry of Basic Education and Culture 1997). Based on this policy the Namibia Library and Information Service Act followed (Namibia 2000). The Act established the Namibia Library and Information Service (NLIS) to ensure that the country has a functional library network and that public, school, national and special libraries work together under one unit in the Ministry of Education (then Basic Education and Culture). The Ministry of Education provides budget, staff structure, physical facilities and conditions for the National Library, public libraries, ministerial and school libraries as well as the National Archives, under one Directorate, the Directorate Namibia Library and Archives Service (NLAS).

Efforts to spread libraries to previously disadvantaged areas of the country were made through public libraries which were renamed as "community libraries" to attract new users, especially the formerly excluded black majority. The historical legacy is still evident from the fact that many community libraries in the southern and central part of the country are situated in the formerly segregated 'white' areas of towns and villages, far removed from the townships with the majority of the population. The change can, however, be seen through the establishment of community libraries in formerly 'black' urban and rural areas during the last 20 years, and plans for additional service points. At Independence, there were 23 public libraries funded by the Administration for Whites and four privately-funded public libraries. Between 1990 and 2000, eight community libraries were established, and during the period from 2000 to 2005, 20 more community libraries were established in those areas that had previously been disadvantaged. This was mainly due to donations received from Swedish Development Aid (SIDA), Book Aid International and initiatives between the Directorate Adult Basic Education (DABE) and NLAS to establish Community Learning and Development Centres (CLDCs) supported by an Italian NGO (Comitato Internazionale Per Lo Sviluppo Dei Popoli, CISP) (Smith 2008: 33–35). Community/public libraries are, however, still unevenly distributed. They number currently 64, and the most densely populated northern regions, where there were no libraries before independence, are still underprovided. An additional problem was that although the policy framework was very modern, emphasizing the library service role in are supporting the country's development goals (Ministry of Basic Education and Culture 1997: 8, 10–15, 25–27), it took time to put it into practice. By default, the acquisitions and facilities for public/community libraries tended to continue the conceptual pattern of a recreational reading and lending institution. The prevailing concentration of the library network was also evident from the fact that almost all special libraries were and are situated in the capital,

Figure 3 & 4. As a result of being included in the ETSIP, Libraries became a recipient of financial resources that enabled them to provide computers and free internet access to all Public/Community Libraries in Namibia. (© Maru Peltonen).

Windhoek. There are more than 40 libraries in Windhoek (Namibia Library and Archives Service 2007), which meant that to have access to specialized, professional information, any person had to physically travel to visit libraries in Windhoek. Except for those at higher education institutions, libraries were not provided with ICT and thus could not provide services beyond their paper-based collections. The staffing structure in both public/community and special libraries under Government Ministries was based on non-professional staff, library assistants with only secondary school education and in some cases primary education (Grade 8) as the only requirement. Professional staff were almost exclusively provided in the staffing structure of the central library administration at the NLAS Directorate. The libraries in the regions were administered under the regional structure, providing only one to three librarian posts in each of the 13 regions. These few librarians were responsible for the professional support of from two to eight public/community libraries and all school libraries in each region. Acquisition for both school and community/public libraries countrywide remained centralized under NLAS.

Because of the several problems that compounded the education system, several studies and advisory commissions of inquiry were commissioned.[2] The World Bank was one of such bodies that were requested to provide expert advice to the education sector.

Vision 2030 and the Education Sector Improvement Programme (ETSIP)

Between 1998–2002, the Namibian government developed Vision 2030. Vision 2030 is a national strategic plan, analyzing and describing development goals to transform Namibia from a raw material and agriculture based economy to a knowledge-based economy and to overcome poverty and development country status by the year 2030 (Office of the President 2004).

In 2002, the Government of Namibia contracted the World Bank to assist in carrying out in-depth studies to evaluate education sector performance at primary, secondary, vocational and tertiary level, as it was claimed that in spite of high government investment in education, the education sector failed to provide the quality of skills and expertise required by the labour market.

The World Bank studies (Alexander 2004; Bateman 2003; Bonelli, 2003; Godana 2003; Johanson, 2003, Marope 2003; O'Hare 2003; Westergaard-Nielsen 2003) confirmed critical problems in the performance of the Namibian education system and outlined radical measures and recommendations for the improvement of the education system in Namibia in order to make the country competitive in the global economy. This process culminated in a final report (Marope 2005) with key strategic issues based on the policy pillars of access, equity, quality, efficiency, effectiveness and pro-poor approach for developing a strategic plan to reach the results required from the education system in a knowledge based society. This report did not include the library sector in its intervention proposals. Following the recommendation of the final report (Marope 2005) the Ministries of Education[3] requested the expertise of the World Bank as technical advisors for the process of developing a strategic intervention to improve the education sector performance. The result was a 15-year strategic plan, the Education and Training Sector Improvement Programme (ETSIP), to be implemented with additional government budget allocation and development partner support, in 2005–2020 (Ministry of Education 2005). Following several interventions by the Namibia Library and Archives

Figure 5. One of the three Regional Study and Resource Centres under construction with the financial support of the United States of America (USA) Government's Millenium Challenge Account Programme.

Service, the library sector was included as an addendum in the strategic plan without the actual analytical programming that had happened in the other parts of the plan.

Lobbying for inclusion of the library sector into ETSIP continues

The management of NLAS was strongly convinced that libraries have a role to play and can contribute significantly as part of the education sector to the realization of Vision 2030 and a knowledge-based society. This conviction goes along with Vision 2030, which recognizes the role of libraries in national development, but equally acknowledges the shortcomings of libraries in Namibia. As stated in the section that deals with a knowledge-based society, "Namibia's libraries are poorly equipped to play the vital role in the 'age of information'. Very few offer Internet access. None have any media other than reading materials available (no videos, CDs, DVDs etc) and only a very limited number of periodicals. There is also a lack of qualified librarians." (Office of the President 2004:78). It would have been expected that studies carried out in view of translating Vision 2030 into strategies for implementation would have analyzed libraries and their contribution to the knowledge-based society. This was, however, not the case.

The public libraries did not feature as a specific area in the studies carried out by the World Bank consultants,[4] hence they were also not identified as a key strategic issue to be developed and to be funded under ETSIP. Although Vision 2030 identifies libraries as a critical area with several shortcomings that need to be addressed in order for the libraries to play a pivotal role in the national development, the 2003–2005 World Bank studies failed to recognize their role completely. This lack of recognition by the World Bank team meant that libraries would not be considered as an area that needed special funding to be improved to a level where they would be able to support national development strategies.

The fact that the final World Bank report (Marope 2005) presented to the Ministry of Education, did not include an analysis of the challenges and opportunities in the library field proved to be a serious challenge to the library sector. This exclusion was critical for NLAS as it was made clear that the ETSIP plan would be a priority in funding the education sector. Thus, all other Ministry of Education activities would continue with the current level of basic funding while any additional funding could only be invested in activities that were part of the ETSIP strategic framework.

In this situation the NLAS management engaged the top management of the Ministry of Education at both policy and administrative levels to convince them about the critical role played by libraries within the education system and the consequences of leaving them out of ETSIP. NLAS succeeded in convincing the Ministry that their inclusion is critical for the realization of educational goals, for teaching, learning and research. Henceforth NLAS was invited to the planning process, which translated each of the key strategic issues into a plan for implementation with objectives, measures, indicators and costing. It immediately became necessary to carry out an analysis of the library sector to be included in the reform process. As libraries were not part of the original World Bank blueprint, the library sector strategy was added only as an addendum in the 15-year ETSIP strategic plan. Nevertheless, inclusion in this plan was the first successful step. The ETSIP strategic plan (Ministry of Education 2005) was submitted to the Namibian Cabinet and was endorsed with a pledge of N\$100 million (€10 million) per annum for its implementation. Following Government approval, the World Bank undertook to engage international development agencies to raise funds for the implementation of this plan, ETSIP. A roundtable meeting was convened in 2005 with international partners, who endorsed ETSIP as the strategic plan for the education sector and pledged their contribution to this plan (Tencalla 2011).

This situation brought Namibia Library and Archives Service Management to realize the urgency in mitigating the impact of being excluded from ETSIP, and the importance of rapidly analyzing the strategic issues within the library sector to be able to develop a detailed strategic plan as part of the ongoing ETSIP process.

The challenges

NLAS faced a situation where, if it continued with the basic funding that was merely enough to sustain operating its outdated library network, it would not be able to implement improvements for the next 15 years, being left out from the Ministry's strategic framework.

Without additional funding to upgrade the library network, NLAS would be faced with problems of complying with the e-governance policy for the public service of Namibia, which envisages that, for all citizens to have ICT skills and to achieve lifelong learning, it is necessary that libraries and related units act as outposts for distance studies and public ICT access (Office of the Prime Minister 2005: 51).

Equally, the Namibia Library and Information Service Act and the policy on which it is based require NLAS to maintain and sustain adequate information resources and facilities based on the learning, study, teaching, research, and social and economic development needs of the society (Namibia 2000); Ministry of Basic Education and Culture 1997). It would be impossible to realize these expectations without additional funding.

How would NLAS respond to regional and local authority requests to establish more and better-resourced public/community libraries to formerly disadvantaged villages, communities and regions?

How would NLAS satisfy the popular demand for providing information for professional development, study and learning materials for an education-hungry population with a large segment of distance education learners who have no direct access to tertiary education libraries?

In the face of the above mentioned challenges, NLAS management team realized that it could not sit back and allow itself to be excluded from ETSIP. The major challenge was the lack of a baseline study proving a situation analysis, identifying the strategic issues that need to be addressed, and recommending measures for action. It became critical to prepare a clear, fully validated motivation for the consideration of the Ministry and the World Bank technical expert team. This motivation was based on the policy and legal framework as well as library experience, but empirical studies were required to justify the need for improving the library service from a user perspective, and not just from library theory and practice, that was perceived as a subjective justification for self-survival and existence.

User and stakeholder perspective

NLAS dispatched several teams consisting of library staff to nine of the 13 regions of Namibia to solicit evidence on the needs and expectations of library users, to evaluate the existing library facilities, resources and services, and to evaluate whether they matched with user expectations. This audit included observations on library facilities and usage and interviews with users encountered in the libraries during the audit, with the regional decision makers and with the library staff. NLAS also made use of the 2003 study analysing the challenges and opportunities of the library network under NLAS (Haavisto 2004) and the regional visits of the Namibia Library and Information Council undertaken since 2002 (Namibia Library and Information Council 2007). Circulation and membership statistics[5] as well as monthly reports submitted to NLAS from libraries in the regions were also used to analyze whether users find what they are looking for. NLAS audit team was provided with recording equipment and cameras to capture as much evidence as possible. The findings of the analytical process in terms of user perspective showed a clear mismatch between the user demands and expectations and the available facilities and resources. For example, students who are studying through distance education, even professionals who want to upgrade their professional skills in the regions, cannot find resources for their professional development (Namibia Library and Archives Service 2006; Namibia Library and Information Council 2007; Niskala 2008)

From the library professional perspective, the study by Haavisto and Karhula (2004) outlined recommendations ranging from staffing to study facilities and efficient use of ICT to improve access to information and improved library administration. Library staff highlighted lack of resources, lack of study places in the libraries, which were heavily used by students and learners especially in disadvantaged communities, and lack of study materials and information in the field of development. They mentioned that many users left the library without getting what they were looking for (Namibia Library and Archives Service 2006; Namibia Library and Information Council 2007; Niskala 2008). Decision makers in the regions were calling for the extension of the library network to villages, local communities and schools. They highlighted the prevalence of learners who cannot read – an observation that was quantified by the SAQMEC II studies, which show that Namibia has a high incidence of children that were pushed through to the level of high school without competency in reading and numeracy (Makuwa 2005). They saw the necessary synergy between problems in the education sector and non-formal educational support that could be provided by libraries – if they were adequately resourced and staffed.

These findings established the point that in spite of the strong legal framework, without additional

resources NLAS could not honour its legal obligation, making the Library and Information Act and various policies toothless. Based on professional vision of the library sector's contribution to national development and the findings of the analytical surveys carried out by the library staff, NLAS prepared its detailed 5-year strategic plan for the first phase of ETSIP, identifying key strategic issues even though it was not yet officially accepted as part of ETSIP. This strategic plan included a programme description with background, achievements, challenges and priorities and the logical framework detailing the implementation plan consisting of strategic objectives and activities organized under several ETSIP components describing major goals, inputs, outcomes and indicators. Because of the urgency of this planning process, assistance from colleagues at the University of Namibia and other major libraries in the country was sought. Within half a year, by the end of 2005 NLAS had the documentation outlining its strategic intervention ready and started lobbying within the Ministry and the education sector.

NLAS lobbying strategy

NLAS was very well prepared with documentation that met all the requirements of the ETSIP process, and this gave the Directorate the confidence to present the plan in any situation where ETSIP was discussed.

The first step in lobbying was to form partnerships with the Directorates within the same Ministry that were already recognized by the World Bank and included in the ETSIP programme. Their solidarity was critical because this interaction created a snowball effect as they in their turn started lobbying for the library sector inclusion. They also informed NLAS about scheduled meetings with the World Bank team, to which NLAS was not invited, as it was not officially part of ETSIP. NLAS management ensured that it would not miss a single meeting that came to their attention, and established a dedicated team so that any one of the team could speak on behalf of NLAS.

The second phase of lobbying was to present the library sector plan to the top management of the Ministry of Education, explaining the rationale and the gap that will be created if libraries are not part of ETSIP. It was critical to remain collected and present the plan in a very composed manner, even when it hurt to be treated as an unwanted intruder. The team ensured not to complain and never to become emotional, even in heated debates (which in fact did happen during this process) taking care to maintain professionalism.

The Ministry was eventually convinced that the library sector has an important role as part of the education sector development and should become part and parcel of the ETSIP programme. It took a firm decision and undertook to convince the World Bank team.

By the time the World Bank team returned in late 2005 to assist in finalizing the programming and soliciting funds to implement ETSIP, they found the Library and Archives sector included in the ETSIP documentation issued by the Ministry of Education. They did not agree. Their position was that libraries, with the exception of school libraries, are not part of the education sector, and that the public/community libraries should in fact be completely removed from the Ministry of Education[6]. During the final programming phase in 2005, the ETSIP Programme document and 5-year plan was changed by the World Bank delegation, and the library sector, which had been included by the Ministry, was cut out, to be included again by the Ministry. The World Bank team maintained this position throughout the negotiation process and still tabled a formal request to the Ministry to exclude the library sector from the ETSIP plan as late as April 2006 when the full programme was presented to the development partner community. Their recommendation was that libraries and knowledge management and creation should be excluded from ETSIP (World Bank 2006).

Nevertheless, NLAS attended all World Bank team meetings and development partner roundtables, met all the deadlines and spoke for the libraries using available evidence on usage, services and gaps, especially pictures of library innovations and activities. It was the images of children studying in small crammed reading rooms of community libraries in remote villages that captured the heart of development partners and made them listen to the plea of library services. Eventually, because the education sector was fully behind NLAS, the World Bank had no choice but to accept libraries and archives programme as part of ETSIP. The inclusion was officially recognized in the ETSIP appraisal meeting in October 2006, where the World Bank team and development partners provided positive feedback on the library sector programme. The library sector has since then been included in the Ministry of Education ETSIP documentation and planning, but remained outside all ETSIP documents issued by the World Bank and published at the World Bank website (World Bank 2012).

It remains to be established why the World Bank team was so fiercely against recognizing the contribution of libraries to the education sector.

The outcome of the NLAS lobbying process

Based on the long lobbying and programming process in 2006, the library sector was finally accepted officially as part of the Education and Training Sector Improvement Programme within the Lifelong Learning sub-programme called Culture, Adult and Lifelong Learning (CALL), later streamlined and renamed Information, Adult and Lifelong Learning sub-programme (IALL).

Within the Education and Training Sector Improvement Programme, the Namibia Library and Archives Service received funding which almost doubled the operational budget for the library network, although the IALL sub-programme allocation of the overall ETSIP budget was only 5 percent – which during 2006–2012 has meant a total allocation of about €6 million, of which over 50 percent has been used for the library and information service sector development (Tencalla 2011; ETSIP annual review documents).

In addition to the overall inclusion of the library sector, ETSIP further included the community libraries in its Information and Communication Technology deployment, providing funding for computers and connectivity not only to schools but also to the community libraries. Later, after a 2-year process in 2006–2008, some of the ETSIP-activated library programmes achieved additional funding to extend the scope of plan by being included in the countrywide Millennium Challenge Account Namibia programme (Millennium Challenge Account Namibia 2006). This is a large scale development programme support by the United States Government with the aim of supporting economic improvements that will redress poverty and accelerate economic growth. Although initially left out again, the library sector proposal on building and equipping three regional libraries to disadvantaged regions to improve access to scientific, professional and technological information as well as study and learning materials was accepted. This required another active lobbying process based on the fact that access to information is unequally distributed in the country and could be a genuine economic resource in improving peoples' livelihoods.

Results of the library sector ETSIP Phase I (2006–2012): how the library network has changed

After 6 years of ETSIP implementation, it can be said that, although the public/community library network has shifted from a recreational reading and lending institution towards a genuinely inclusive education and information institution, the NLAS ETSIP plan was obviously too ambitious in view of available financial resources and even more so the human resources critical to implement the library sector reform throughout the country. However inclusion in the ETSIP programme has brought about a real change in the countrywide library network.

The main objective of the library sector ETSIP programme (Ministry of Education 2007: 57–64) was to redress geographical and social inequalities in access to information. That was further defined to address the ETSIP pro-poor principle by focusing the aim to redress constraints faced by the disadvantaged part of the population.

With regard to ICT, the aim was to provide free public ICT access through all community/public libraries to improve access to relevant information and learning resources and support learning of computer skills, as well as use of computers for redressing poverty by employment creation and support to the local economy (Ministry of Education 2007). While in 2005 there were only five community libraries with a few public use computers and Internet access for which the user had to pay, today 41 of the 64 public/community libraries provide free public ICT access. The pro-poor approach brought about changing the original idea of charging for computer use and Internet to sustain the services. Initial statistics comparing libraries that charged for ICT use and those that provided free internet access clearly validated the assumption that in Namibia the income levels do not allow the vast majority of population to pay for ICT access. While the free computer labs in libraries were full, the usage numbers in the libraries that charged fees were only 5 percent of the numbers in libraries with free ICT access[7]. Statistics provided clear evidence for the decision to provide free ICT access in libraries. Today libraries as public ICT access points have been clearly accepted. Although the target was not totally achieved, the sustainability of the initiative is supported by inclusion of free public ICT access in libraries in the Ministry of Education Midterm Expenditure Framework and the forthcoming Ministry of Education 2012–2016 strategic plan, thus making it part of mainstream education sector development. Budget provision for the community/public library network Internet connectivity was secured in 2009, thus moving the cost from the donor-supported improvement programme to a sustainable mode. Through the ETSIP funding NLAS also subscribed to the first selection of international online information portals and databases to be available through public/community libraries starting from 2012. The first months of usage proved

its usefulness for Ministry staff and other library users, especially those doing postgraduate studies.

The ICT access component of ETSIP included more efficient use of ICT in providing local content through digitization and digital libraries, as well the introduction of joint catalogues and integrated library management systems in all community and special libraries. This part did not advance except for projects in the National Archives to digitize historically important national documents. The community and special libraries still use manual lending systems, the joint catalogue is not available in the internet – mainly due to very limited professional staff in the NLAS structure this part of the improvements of the library and information services was not achieved, but is part of future plans.

Three regional study and resource centres, well equipped and resourced regional information centres, are under construction, with MCA Namibia funding[8] under the auspices of the ETSIP programme. The fourth, under advanced planning, will be built with government budget. Such centres should be established in all of Namibia's 13 regions, but it needs practical pilot projects to convince stakeholders of the benefits of such centres to education and economic development (Millennium Challenge Account Namibia 2006; 2008, 2009: 12–14; Duddy 2009).

The library sector human resource factor remains a key problem. Namibia Library and Archives Service was well aware of the problems in human resources in the library sector when the ETSIP programme started, due to the existing staffing structure that is mainly based on non-professional clerical staff in both community and special libraries as well as newly graduated and still inexperienced librarians in most of the few professional positions (the Haavisto 20003). This led to including a strong component of capacity building in the ETSIP programme, providing support to qualifying studies for library assistants to occupy the vacant professional positions and scholarships for further studies for the newly graduated staff members to create expertise in the specialized fields of librarianship. Both the ETSIP evaluation report and the strategic assessment of the library sector carried out as part of ETSIP, however, state that NLAS has been trying to do too many things without adequate human resources – and that "the Component 3 (Access to information) of the IALL plan assumes that management of decentralized programme/service delivery is in the hands of a network of competent staff at regional, district and community levels. Yet survey reports and studies suggest that (a) the regional / district network is short-staffed; (b) individual capacities of available staff continue to be weak" (Connal 2011; MDR Partners 2011).

Although the professional capacity building part of the ETSIP programme helped to improve the professional skills of some 25 staff members from community/public and ministerial libraries, it did not have as much impact as hoped for, because of another residue of past policies that has not yet been resolved. Newly trained staff were often drawn towards greener pastures by parastatal and private institutions. The LIS sector strategic assessment carried out in 2009–2010 (MDR Partners 2011:33) put it very bluntly: "Low staff salaries make it near impossible to attract and retain staff; competencies required by the LIS sub-sector are difficult to find in new recruits; professional development often results in resignations; and a shortage of senior-level positions suggests that the staffing structure in general is in dire need of upgrading." Human resource capacity proved to be the weak link in the reform process. Although the ETSIP library sector programme contributed to the development of library sector expertise at the national level, it did not translate into improving the public/community library human capacity base. This issue needs clearly more attention, because any service is only as good as those who render it. It led, however, to the conclusion confirmed by the overall ETSIP midterm review that in the library sector, improvement requires restructuring and re-grading of the staffing structure to secure the required expertise. NLAS has since prepared proposals for an upgraded LIS sector staff structure which, although not yet finally approved, got an overall favourable reception. This can be seen as a direct outcome of the ETSIP process.

Conclusion

The Namibia Library and Archives Service (and, one could say, the entire library sector in Namibia, as it has been involved in the process) learnt some very important lessons, which are likely to be applicable not only in Namibia.

One lesson is that it is worthwhile not to give up easily, even when being poised against an adversary as formidable as the World Bank. We are not in a position to analyse whether the neglect of libraries as an educational resource is a World Bank policy, or an unfortunate accidental result of preconceived opinions of the specific consultants involved – this would require comparison with the experience of other countries.

Another lesson is the importance of reliable and comprehensive statistics, not only on the use of libraries, but also on external factors that influence, or may be influenced by, the use of libraries. Statistical data on the population of the area in reach of libraries, the school-going population, on distance

learners, on small and micro-enterprises in need of information are vital pieces of the puzzle to convince stakeholders that investment in libraries is necessary. But just as important are qualitative accounts of persons who have experienced how library use has helped them.

Finally, it is extremely useful to have successful examples at hand how a functional library can become a lively and much-used community resource. We were fortunate to have such an example close at hand, in a small community library in one of our capital's poorest suburbs[9]. We have seen people who knew only the concept of a library as a place where bored old ladies go to borrow the next novel of their favourite author, coming out completely converted to the idea of libraries as a development instrument after a visit to this library. That library has been developed in a small-scale cooperation project between the City of Windhoek and the City of Vantaa (Finland), and in serving as such an example it has had a much wider impact than just on the local community.

NLAS has not yet carried out a study to analyse in detail how libraries with these improvements are and will be contributing to national development goals and educational performance. That is an aspect that needs attention to secure the required funding for further developments. International impact studies of public libraries (e.g. Holt 2003) seem to support the benefits gained from libraries, however as they have all carried out in the US and other developed countries, a locally adjusted study would be needed to evaluate the assumptions made in ETSIP strategy and further library sector planning.

Notes

1. With the single exception of a library maintained by the "Government of Rehoboth".
2. In particular the Mercer Report (Namibia. Ministry of Education and Culture 1993) which did recognize the need to expand library services, and the Presidential Commission of Education and Training (Namibia. Presidential Commission 2001) which failed to address the issues of libraries, just like the World Bank reports that will be discussed further on.
3. Until 2005, divided into two ministries, the Ministry of Basic Education, Sport and Culture (MBESC) and the Ministry of Higher Education and Vocational Training (MHEVT).
4. Only in the report on tertiary education institutions (O'Hare, 2003), the need to invest on libraries was acknowledged.
5. Community/Public library user statistics (number of visits), which are now part of the library sector results framework, have only been collected since 2007 as part of the ETSIP process.

6. Notes on discussions in 2005–2006 with the World Bank Delegation, headed by Dr Marope, and Ms. Ellen Namhila, the Director of Namibia Library and Archives Service from 1999–2007.
7. Library ICT usage statistics / NLAS.
8. Millennium Challenge Account (MCA) Namibia is the US Government funded 5-year development programme through Millennium Challenge Corporation (MCC), funded in Namibia from 2009–2014. MCA Namibia supports poverty reduction and economic growth through public investments (US$ 304.5 million) in Tourism, Agriculture and Education. The Education sector programme includes construction of three Regional Study and Resource Centres as part of support to the ETSIP programme. (See: Chapter 4 of the article, last paragraph).
9. Greenwell Matongo Community Library, Katutura, Windhoek. https://sites.google.com/site/greenwellmatongo/home

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Academic librarians and research data services: preparation and attitudes

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Abstract
Research funding bodies recognize the importance of infrastructure and services to organize and preserve research data, and academic research libraries have been identified as locations in which to base these research data services (RDS). Research data services include data management planning, digital curation (selection, preservation, maintenance, and archiving), and metadata creation and conversion. We report the results of an empirical investigation into the RDS practices of librarians in US and Canadian academic research libraries, establishing a baseline of the engagement of librarians at this early stage of widespread service development. Specifically, this paper examines the opinions of the surveyed librarians regarding their preparedness to provide RDS (background, skills, and education), their attitudes regarding the importance of RDS for their libraries and institutions, and the factors that contribute to or inhibit librarian engagement in RDS.

Introduction

Many research funding bodies (in the US these include the National Science Foundation, the National Endowment for the Humanities, and the National Institutes of Health) recognize the importance of providing services and infrastructure to organize and preserve research data, and academic research libraries have been identified as locations in which to base these research data services (RDS) (Association of Research Libraries, 2006; National Science Foundation, 2008). The academic research library community is currently working to develop RDS as a new set of strategic services (Association of Research Libraries, 2010).

Research data services are defined here as services that address the full data lifecycle, including the data management plan, digital curation (selection, preservation, maintenance, and archiving), and metadata creation and conversion.

It is important to understand at this early stage the degree to which individual librarians working in academic research libraries actually engage in providing research data services (RDS), and the frequency with which they engage in particular research data services. The results of an empirical investigation into the RDS practices of librarians in US and Canadian academic research libraries establish a baseline of the engagement of librarians in RDS and provide LIS practitioners, administrators, and educators with data to inform strategic or tactical planning in academic research libraries.

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This paper reports results that address the following research questions:

> RQ1: Do academic librarians have the background, skills, and education to provide library-based research data services (RDS)?
>
> RQ2: What are librarian attitudes regarding the importance of RDS for their libraries and their institutions?
>
> RQ3: What are the factors that contribute to or inhibit engagement of librarians in RDS?

Related research

Librarians have discussed their possible roles regarding research data services now and into the future (Council on Library and Information Resources, 2008; Association of Research Libraries, 2006; Hey and Hey 2006; Gold, 2007) The focus of these discussions is generally on the library's role in data curation, rather than the preparedness and attitudes of individual librarians.

Libraries were the object of study in the Association of Research Libraries (ARL) 2009 e-science survey in North America (Association of Research Libraries, 2010). Only half of ARL libraries responded; of those about half (45 percent) had units to provide support for scientific research data on their campuses. An environmental scan by the Data Working Group at Cornell University Library found that a few university libraries were then involved in curation of research data, including Johns Hopkins, Purdue University, the University of Washington, and Cornell (Steinhart et al. 2008).

In the UK, a 2007 study found little awareness by librarians of whether research data services were in development at their institutions (Martinez, 2007). Another UK survey found a third of respondents believed that in five years time "manager of datasets from e-science/grid projects" would be a core role of librarians, with another third designating it an ancillary role (Research Information Network and Consortium of Research Libraries, 2007).

Three key roles for data librarians were proposed by Swan and Brown (2008), including: "increasing data awareness amongst researchers; providing archiving and preservation services within the institution and through institutional repositories; and developing a new professional strand of practice in the form of data librarianship."

Seventy-three percent of the data managers surveyed as part of the PARSE.Insight project in 2009 were employed in libraries (Kuipers and Van der Hoeven, 2009). Among these respondents, the three most highly rated reasons to preserve research data

Table 1. Count of librarians by type invited to participate in the survey.

Type	Count
Metadata	141
Digital collections	97
Life sciences	85
Physical sciences	81
Geographic information systems	71
Chemistry	70
Scholarly communications	69
Biomedical / health	68
E-science / . . .	66
Electronic resources	62
Institutional repository	46
Data	44
Health / medicine	38
Other	10
Total	948

included preservation of publicly funded research, stimulation of the advancement of science, and reanalysis of existing data.

Methods

This study surveyed librarians employed by ARL member libraries, whose areas of responsibility seemed to make it likely that they would either be engaged in providing RDS, preparing to become engaged in RDS, or sensitive to the issues around data management, data curation, and / or e-research. "ARL is a nonprofit organization of 126 research libraries at comprehensive, research-extensive institutions in the US and Canada" (http://www.arl.org/arl/index.shtml). Most of these (116) are libraries in universities.

The librarians invited to participate in the survey were identified by examining the Web sites of ARL academic libraries, locating staff directories, and compiling contact information for librarians involved in specific roles in those libraries (See Table 1). Based upon the information available from their library's staff directory, librarians who seemed most likely to be associated with a function or responsibility with a relationship to scientific data curation or data management were selected to be invited to complete the survey. Librarians who had responsibilities for selected disciplines, such as life or physical sciences, were also included in the survey population. Librarians specializing in cataloging, reference, instruction, or special collections, for example, were not included. Contact information could be found on the Web for 111 ARL libraries, and a total of 948 invitations to
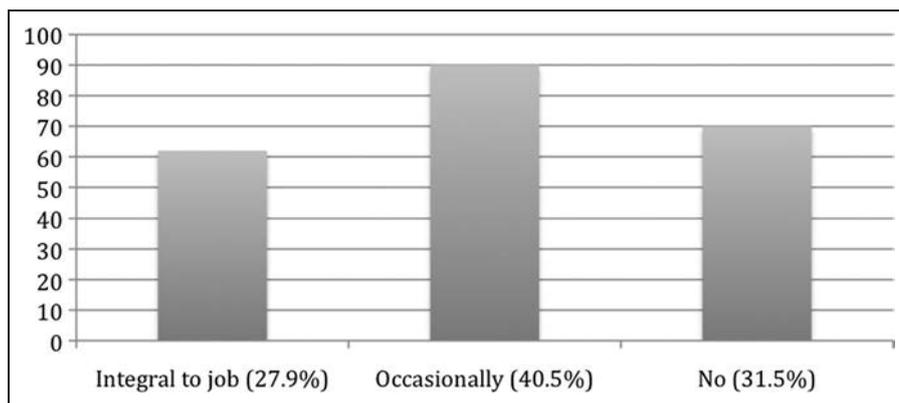
Figure 1. Frequency of responses to "Do you interact with faculty, students, or staff in support of their research data services (RDS) as part of your regular job responsibilities?".

participate were distributed. A total of 223 librarians responded, for a response rate of 23.5 percent.

Limitations

The intent of the sampling process was to select librarians working in areas likely to be involved in an aspect of research data services. Provision of RDS is still an emerging area of responsibility, so we were interested in obtaining responses from, for example, life sciences librarians who were either deeply or uninvolved in providing RDS at the time of the survey. It is possible that the librarians who responded to the survey represent some self-selection bias: the responses may over-represent librarians who are relatively deeply engaged or interested in RDS and under-represent librarians who are uninvolved or uninterested in RDS.

Results

We asked respondents "Do you interact with faculty, students, or staff in support of their research data services (RDS) as part of your regular job responsibilities?" More than two-thirds of the 223 respondents have provision of research data services as an occasional or integral part of their job responsibilities (Figure 1).

We then used these three groups of respondents, which we label the 'integral', 'occasional', and 'no' groups, to cross-tabulate responses to other questions that address our three research questions.

RQ1: Do academic librarians have the background, skills, and education to provide library-based research data services (RDS)?

Respondents were asked to agree or disagree with a set of seven statements related to skills, knowledge, and training related to RDS and their library's support for their professional development as it relates to RDS. The responses to these seven questions were cross-tabulated with the degree to which RDS are integral to their job responsibilities (Table 2).

More than three-quarters of respondents (78 percent) for whom RDS are an integral part of their job responsibilities somewhat or strongly agreed that they have the necessary skills, knowledge, and training to provide RDS (row 2.1 in Table 2). About 46 percent of those who have occasional responsibilities for RDS agreed that they have the necessary skills, knowledge and training. For respondents who don't have RDS as part of their job responsibilities 60 percent feel they do not have the skill, knowledge and training necessary to provide RDS. This pronounced pattern of high agreement from the 'integral' group, moderate agreement from the 'occasional' group, and low agreement from the 'no' group shown here is typical of the responses to most of these seven statements.

The responses to the second statement (Table 2, row 2.2) about librarians' subject expertise were more evenly distributed: 69 percent of the 'integral' group strongly or somewhat agreed that they had sufficient subject expertise; about 57 percent of the 'occasional' group and 47 percent of the 'no' group somewhat or strongly agreed. At this early stage this might be considered a position of strength for the future of library involvement with RDS–almost half to two-thirds of respondents feel they have the subject expertise necessary to provide these services to their patrons.

Responses to the statement that their jobs allow them sufficient time to provide RDS to their patrons (Table 2, row 2.3) shows a pronounced difference in the level of agreement / disagreement between the three groups. For the 'integral' group, about 62 percent somewhat or strongly agree that their job allows sufficient time to provide RDS. Only a quarter

Table 2. Librarians' skills, knowledge, and training necessary to provide RDS.

As a librarian . . .	Interaction Frequency	Agree Strongly	Agree Somewhat	Neither Agree Nor Disagree	Disagree Somewhat	Disagree Strongly
(2.1) . . . I have the skills, knowledge, and training necessary to provide RDS.	Integral	12 (26.7%)	23 (51.1%)	2 (4.4%)	7 (15.6%)	1 (2.2%)
	Occasional	5 (7.2%)	27 (39.1%)	8 (11.6%)	21 (30.4%)	8 (11.6%)
	No	2 (4.4%)	8 (17.8%)	8 (17.8%)	15 (33.3%)	12 (26.7%)
(2.2) . . . I have sufficient subject expertise to provide RDS to my patrons	Integral	18 (40.0%)	13 (28.9%)	6 (13.3%)	7 (15.6%)	1 (2.2%)
	Occasional	15 (21.7%)	24 (34.8%)	9 (13.0%)	15 (21.7%)	6 (8.7%)
	No	5 (11.1%)	16 (35.6%)	10 (22.2%)	11 (24.4%)	3 (6.7%)
(2.3) . . . my job allows me sufficient time to provide RDS to my patrons	Integral	12 (26.7%)	16 (35.6%)	6 (13.3%)	7 (15.6%)	4 (8.9%)
	Occasional	2 (2.9%)	16 (23.5%)	14 (20.6%)	23 (33.8%)	13 (19.1%)
	No	1 (2.2%)	3 (6.7%)	15 (33.3%)	14 (31.1%)	12 (26.7%)
(2.4) . . . I have access to training in RDS to help me meet my patrons' needs	Integral	8 (17.8%)	21 (46.7%)	5 (11.1%)	9 (20.0%)	2 (4.4%)
	Occasional	2 (2.9%)	15 (22.1%)	20 (29.4%)	21 (30.9%)	10 (14.7%)
	No	0 (0.0%)	4 (8.9%)	12 (26.7%)	13 (28.9%)	16 (35.6%)
(2.5) . . . my library provides opportunities to develop skills related to RDS.	Integral	12 (26.7%)	20 (44.4%)	5 (11.1%)	5 (11.1%)	3 (6.7%)
	Occasional	6 (8.7%)	28 (40.6%)	17 (24.6%)	11 (15.9%)	7 (10.1%)
	No	1 (2.2%)	14 (31.1%)	7 (15.6%)	10 (22.2%)	13 (28.9%)
(2.6) . . . my library supports me to take courses related to RDS.	Integral	19 (43.2%)	17 (38.6%)	3 (6.8%)	4 (9.1%)	1 (2.3%)
	Occasional	14 (20.3%)	22 (31.9%)	24 (34.8%)	7 (10.1%)	2 (2.9%)
	No	4 (9.3%)	11 (25.6%)	18 (41.9%)	6 (14.0%)	4 (9.3%)
(2.7) . . . my library supports me to attend conferences or workshops elsewhere related to RDS.	Integral	24 (53.3%)	15 (33.3%)	2 (4.4%)	4 (8.9%)	0 (0.0%)
	Occasional	24 (34.8%)	29 (42.0%)	10 (14.5%)	6 (8.7%)	0 (.0.%)
	No	5 (11.6%)	12 (27.9%)	18 (41.9%)	6 (14.0%)	2 (4.7%)

(26 percent) of the 'occasional' group somewhat or strongly agrees, and only 9 percent of the 'no' group agrees with the statement. If RDS services are to be expanded at ARL libraries, RDS need to be made a priority in the responsibilities of the librarians who will be providing these services. This will require a reassessment of priority of all library services and a reallocation of librarian responsibilities.

When asked to agree or disagree with whether they have access to training in RDS to help them meet their patrons' needs (Table 2, row 2.4), respondents for whom RDS are integral are much more likely to agree (about 65 percent) compared to the other two groups. Access to training seems to track with current responsibilities.

Similarly, the responses to the statement that their library provides opportunities to develop skills related to RDS (Table 2, row 2.5) shows the same pattern of higher agreement from people in the 'integral' group (71 percent agree somewhat or strongly). We cannot tell from the answers if the librarians in the 'occasional' or 'no' groups work at libraries that do not provide opportunities to develop RDS skills or if these librarians are simply unaware of opportunities that exist. However, even if not provided in their library, a majority of librarians agree that they are provided with support to take courses to develop skills related

to RDS (Table 2, row 2.6). Again, respondents in the 'integral' group are much more likely to agree.

Most respondents in the 'integral' and 'occasional' groups agree with the statement "my library supports me to attend conferences or workshops elsewhere related to RDS," (Table 2, row 2.7), When the three groups are combined, about 70 percent agree strongly or somewhat with the statement.

RQ2: What are librarian attitudes regarding the importance of RDS for their libraries and their institutions?

Respondents were asked to agree or disagree with a set of six statements related to the importance of RDS for libraries and the institutions within which libraries are a part. The responses to these six questions were cross-tabulated with the degree to which RDS are integral to their job responsibilities (Table 3).

When asked to agree or disagree with whether RDS are just as important as other activities that they provide for their patrons (Table 3, row 3.1), respondents in the 'integral' group are more likely to agree (about 82 percent) than those in the 'occasional' (68 percent) and 'no' groups (36 percent). When the three groups are combined, about two-thirds (63 percent) agree strongly or somewhat.

Table 3. Librarians' attitudes regarding the importance of RDS for libraries and institutions.

	Interaction Frequency	Agree Strongly	Agree Somewhat	Neither Agree Nor Disagree	Disagree Somewhat	Disagree Strongly
(3.1) RDS are just as important as other activities that I provide for my patrons.	Integral	26 (57.8%)	11 (24.4%)	4 (8.9%)	4 (8.9%)	0 (0.0%)
	Occasional	19 (27.5%)	28 (40.6%)	11 (15.9%)	8 (11.6%)	3 (4.3%)
	No	5 (11.9%)	10 (23.8%)	15 (35.7%)	8 (19.0%)	4 (9.5%)
(3.2) RDS are unnecessary for librarians to provide to their patrons	Integral	1 (2.3%)	0 (0.0%)	4 (9.3%)	10 (23.3%)	28 (65.1%)
	Occasional	0 (0.0%)	2 (2.9%)	6 (8.8%)	25 (36.8%)	35 (51.5%)
	No	0 (0.0%)	2 (4.7%)	5 (11.6%)	24 (55.8%)	12 (27.9%)
(3.3) RDS are a priority at my library	Integral	15 (33.3%)	15 (33.3%)	6 (13.3%)	6 (13.3%)	3 (6.7%)
	Occasional	7 (10.4%)	20 (29.9%)	24 (35.8%)	14 (20.9%)	2 (3.0%)
	No	1 (2.3%)	7 (16.3%)	14 (32.6%)	10 (23.3%)	11 (25.6%)
(3.4) Providing RDS will increase the visibility and impact of our institutional research	Integral	29 (69.0%)	10 (23.8%)	3 (7.1%)	0 (0.0%)	0 (0.0%)
	Occasional	29 (42.6%)	34 (50.0%)	5 (7.4%)	0 (0.0%)	0 (0.0%)
	No	14 (32.6%)	19 (44.2%)	9 (20.9%)	1 (2.3%)	0 (0.0%)
(3.5) RDS are a distraction from the library's core mission.	Integral	1 (2.4%)	0 (0.0%)	2 (4.8%)	9 (21.4%)	30 (71.4%)
	Occasional	1 (1.5%)	0 (0.0%)	5 (7.4%)	24 (35.3%)	38 (55.9%)
	No	3 (7.0%)	1 (2.3%)	8 (18.6%)	17 (39.5%)	14 (32.6%)
(3.6) The library is the best-suited entity at my institution to provide RDS	Integral	17 (39.5%)	19 (44.2%)	6 (14.0%)	0 (0.0%)	1 (2.3%)
	Occasional	20 (29.4%)	15 (22.1%)	21 (30.9%)	10 (14.7%)	2 (2.9%)
	No	7 (16.3%)	17 (39.5%)	13 (30.2%)	4 (9.3%)	2 (4.7%)
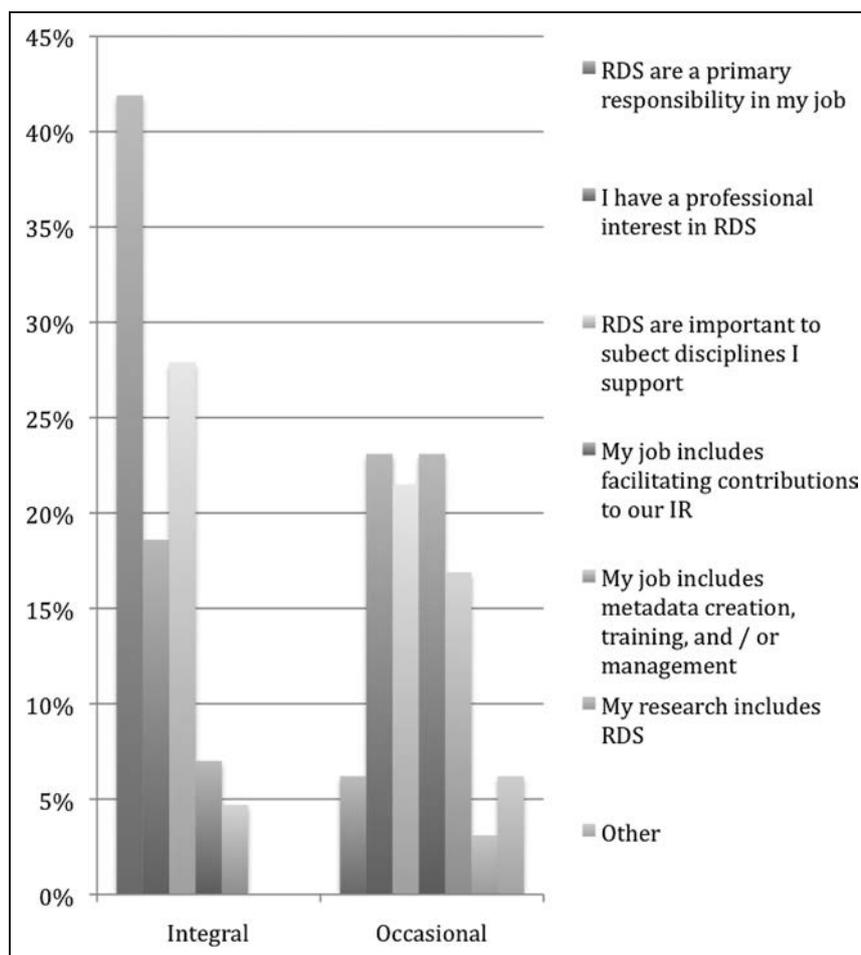
Figure 2. If you are currently involved in RDS, what is the single most important motivation for your involvement?
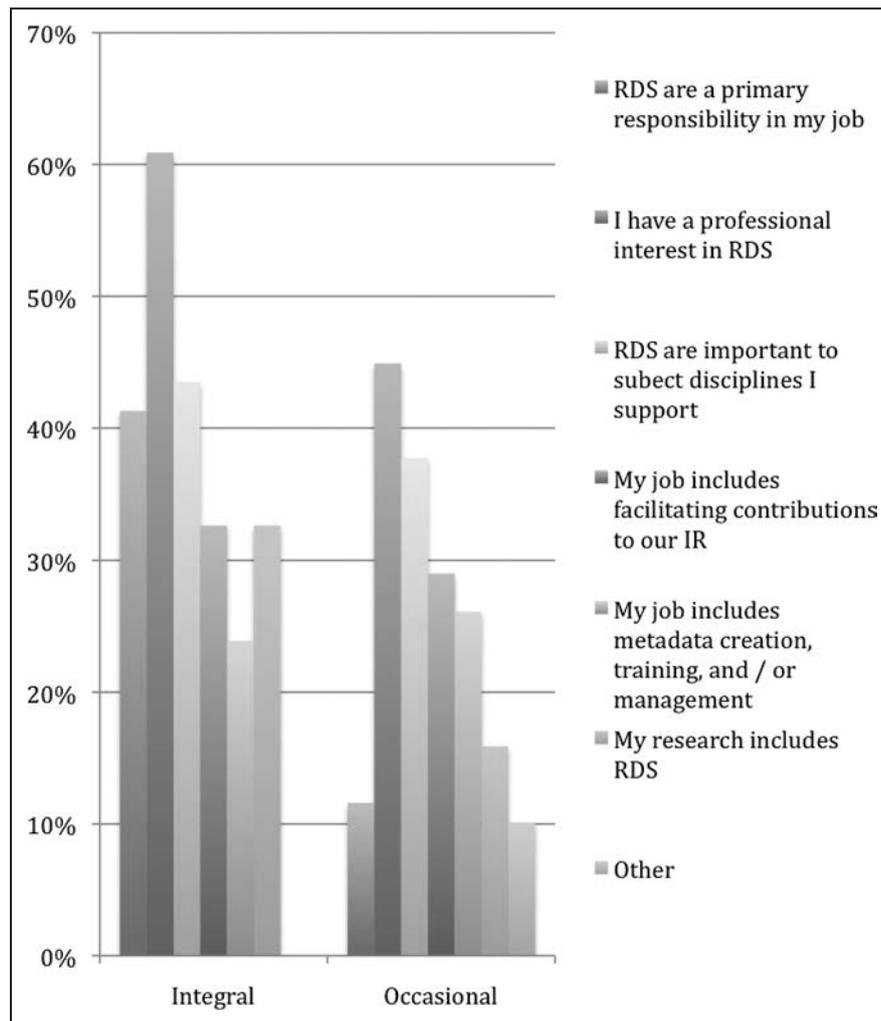
Figure 3. If you are currently involved in RDS, what are other motivations for your involvement? Respondents were able to select more than one response.

Looking at the issue from another and more general perspective, we asked respondents to agree or disagree with the statement "RDS are *unnecessary* for librarians to provide to their patrons" (Table 3, row 3.2). A vast majority of respondents in all three groups disagreed with this statement, indicating by implication that they feel RDS are *necessary* services.

Asked to agree or disagree with the statement "RDS are a priority at my library" (Table 3, row 3.3), the responses form the pattern of much higher agreement from the 'integral' group than the 'occasional' group and the lowest level of agreement from the 'no' group. This represents the opinion of these individual librarians and does not necessarily reflect the official priorities of their institutions. A second survey of academic library policies was sent to directors of academic libraries that are members of the Association of College and Research Libraries (ACRL) in 2011–2012. These results are forthcoming.

There is overwhelming agreement among librarians in all three groups that "providing RDS will increase the visibility and impact of our institutional research" (Table 3, row 3.4). Clearly, these librarians agree that RDS have value to the research mission of their institutions. Looking at it from the perspective of the library, respondents in the 'integral' and 'occasional' groups overwhelmingly disagree with the statement "RDS are a distraction from the library's core mission" (Table 3, row 3.5). Thus, by implication, RDS are considered consistent with the core mission of an academic research library.

Asked to agree or disagree with the statement "the library is the best-suited entity at my institution to provide RDS" (Table 3, row 3.6), more respondents from the 'integral' group agree than those in the 'occasional' group (about 84 percent to 52 percent). Surprisingly, 56 percent of respondents in the 'no' group agree with this statement and the responses from the 'occasional' group show the highest level
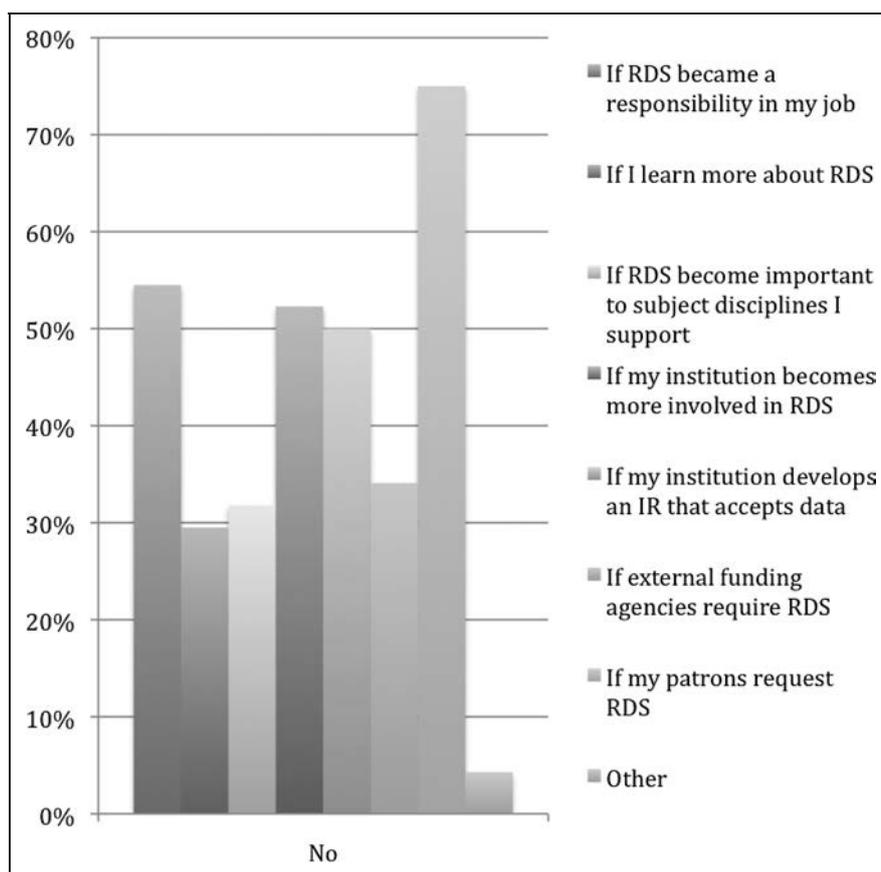
Figure 4. If you are not currently involved in RDS, what would most motivate you to do so? Respondents were able to select more than one response.

of disagreement. When the three groups are combined, about 62 percent agree somewhat or strongly that the library is the best-suited entity to provide RDS. It would be interesting to identify, from the perspective of librarians employed by research libraries, which other entities on campuses might be better suited to offer RDS.

RQ3: What are the factors that contribute to or inhibit engagement of librarians in RDS?

Respondents were asked to identify what motivates their involvement in the provision of library-based RDS. We asked those already involved in providing RDS to identify the single most important motivation for their involvement and to also identify other factors that motivate their participation. We asked those librarians who are not yet involved in providing RDS to identify the factors that would most motivate them to become involved.

When librarians who are already involved in providing RDS, either as an integral or occasional part of their job responsibilities, were asked what is *the single most important motivation* for their involvement, they indicated a range of professional responsibilities or professional interest (Figure 2).

Librarians who are already involved in providing RDS, either as an integral or occasional part of their job responsibilities, were also asked to identify other motivations for their involvement (Figure 3.) Respondents were allowed to select more than one response to this question. Again, a range of professional responsibilities motivate involvement with RDS, with professional interest the most frequently selected answer in both groups, followed by the importance of RDS to the subject disciplines they support.

When librarians who are not involved in providing RDS were asked to identify what would most motivate them to participate, being asked to do so by their patrons was the primary motivation. Increased institutional involvement in RDS, addition of RDS job responsibilities, and development of an institutional repository for data were all mentioned by 50 percent or more of the librarians in this group (Figure 4).

Conclusions

Nearly three-quarters of the ARL librarians who responded to this survey do not have research data services as an integral part of their job responsibilities at this time, yet we found evidence that many ARL

librarians believe they have the knowledge and skills and opportunities to provide RDS in the future and are motivated by professional interests, patron demand, and job responsibilities. Their attitudes show they believe that RDS are important services for academic research libraries to provide and RDS are consistent with the library mission and role.

These librarians believe that research data services will increase the visibility and impact of institutional research. An implication is that library-based RDS are important opportunities for increased alignment between library services and the university research mission.

Libraries are now at an early point in a transition from collection-based services to RDS, requiring resetting of priorities, realignment of responsibilities, and provision of opportunities for librarians to develop skills related to RDS.

Further research

This survey was conducted as part of the NSF-funded DataONE (Data Observation Network for Earth) project. It is just one in a series of baseline assessments of DataONE stakeholders. The baseline assessment of scientists was completed in 2011 (Tenopir et al, 2011). Baseline assessments of US and Canadian academic library policies, US federal librarians and library policies, data managers, and environmental science college teachers were conducted in 2011–2012 and will be published soon. Future baseline assessments to be conducted in 2012–2013 will include assessments of institutional policy makers, publishers, and postgraduate and undergraduate students. Follow-up surveys of all these groups are planned for the future.

Acknowledgements

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Strong libraries, strong societies

Sinikka Sipilä
IFLA President-elect 2011–2013

Libraries have impact on society by fostering equal opportunities to lifelong learning and education, research and innovation, culture and recreation for all

Strong libraries can be defined as ones that have adequate capacity to meet the information needs of their user communities. Thus, for a library to be perceived as a strong library by its clients it should meet such key criteria as relevancy and responsiveness, adequate and sustainable funding, up-to date materials and resources including access to digital contents, timely delivery of information needed, adequate modern ICTs infrastructure and sufficient space, competent personnel to guide user in the effective use of information resources and tools, and to create innovative services.

Strong societies consist of informed citizens who participate actively in the society and promote sustainable development, intellectual and economic growth and general well-being. Crucial for strong libraries and strong societies is the democratic ideal – freedom of access to information for all.

Libraries promote cultural and socio-economic development by providing access to information and knowledge, enabling inclusion and enhancing capacity building.

Access

Libraries and information services contribute to the development and maintenance of intellectual freedom and help to safeguard democratic values and universal civil rights. Consequently, they are committed to offering their clients access to relevant resources and services without restriction and to opposing any form of censorship. (The Glasgow Declaration on Libraries, Information Services and Intellectual Freedom by IFLA). Access to digital contents and balanced solutions to e-lending questions are critical to the future of libraries. (Key Initiative 1)

Inclusion

Library and information services in a culturally and linguistically diverse context include both the provision of services to all types of library users and the provision of library services specifically targeted to underserved cultural and linguistic groups. Special attention should be paid to groups which are often marginalized in culturally diverse societies. (IFLA/UNESCO Multicultural Manifesto)

Capacity building

Libraries build capacity by promoting information literacy and providing support and training for effective use of information resources, including Information and Communication Technologies. This is especially critical in promoting the development agenda because human resources are central to economic progress. In these ways libraries contribute significantly to addressing the digital divide and the information inequality that results from it. (IFLA Alexandria Manifesto)

The Presidential Theme 2013–2015 is based on the previous Presidential Themes. It supports and promotes the IFLA Strategic Plan for 2011–2015 and its four Strategic Directions. The Theme recognizes the Five Key Initiatives identified by the IFLA Governing Board.

The 2nd President-elect's Planning Session 'Strong libraries, strong societies : libraries promoting development' takes place at IFLA WLIC 2013 in Singapore on Thursday 22 August 2013. Welcome to discuss on the theme and the possibilities libraries offer to enhance development and build strong and informed societies!

News

Headquarters Staff Changes

We are very happy to introduce to you new, and newly promoted, staff at IFLA Headquarters in The Hague, the Netherlands.

Andrea Beccalli, Projects Manager

Andrea joined IFLA in October and is managing our project activities, including the IFLA Trend Report (Key Initiative 1), advocacy activities, UNESCO related projects, and supporting the IFLA International Leaders Programme projects. He will also assist with the other Key Initiative projects. Andrea has been working at UNESCO since late 2007 as an Associate Expert in the Knowledge Societies Division. Most recently he was working as a consultant on a UNESCO funded project on Iraq. Andrea brings valuable experience and networks in ICT4D, WSIS, and the Internet Governance Forum.

Fiona Bradley, Manager, Member Services and Development

Fiona has most recently been consultant to the Action for Development through Libraries programme (IFLA ALP) in London since 2009 and worked on the development and implementation of the Building Strong Library Associations Programme and the IFLA International Leaders Programme. Fiona joined IFLA in November and will work on member (and non-member) services and professional programmes, membership growth and participation; and collaborate with staff to develop publishing and communications strategies to support our advocacy, promotional and events related activities and to raise IFLA's profile internationally. Fiona will continue to manage the activities of ALP. Fiona has a professional librarian background in academic and special libraries in Australia.

Julia Brungs, IFLA Policy and Projects Officer

Julia joined IFLA in November and is assisting us in the management of our policy and project activities. Since 2009 Julia has been working with Europeana and The European Library. Most recently Julia has been setting up the account management structure for The European Library. She has also coordinated several projects as a member of the business development team of Europeana. She also has experience in managing partner relations and building partner networks, and administrative responsibilities including committee support. Julia is fluent in English and German, and has studied and worked in Germany and the UK.

Josche Ouwerkerk, Conferences and Business Relations

Josche has been promoted to Manager, and will take over management responsibility for the congress cycle process including governance matters for the conferences company structure and supporting the Congress Advisory Committee. Josche will also provide support and advice to the professional units and the GB on IFLA branded conferences and events. In addition Josche will manage relationships with IFLA's commercial partners, through the congress process and the newly developed partner programme.

Each of our staff bring strong international backgrounds and relevant professional experience to their new roles. We are looking forward to working with them in the team at Headquarters, with Josche in her new role, and more broadly to support IFLA's objectives as the global voice of libraries and information services.

Jennefer Nicholson, IFLA Secretary General

Membership Matters
New Members

We bid a warm welcome to the 33 members who have joined the Federation between 15 September and 10 December 2012. Including the following:

National Associations

Mauritius Council of Registered Librarians (MCRL), Mauritius

Institutions

Pinacoteca do Estado de São Paulo – Biblioteca Walter Wey, Brazil
Porvoo City Library – Regional Library, Finland
Lappeenranta Academic Library, Finland
Porin kaupunginkirjasto – Satakunnan maakunta-kirjasto/Pori City Library, Finland
Edinburgh City Libraries, United Kingdom
Columbus Metropolitan Library, United States

Personal Affiliates

Skai Shadow, United States
Talia Chung, Canada
May Chang, United States
Irja-leena Suhonen, Finland
Jan Rutherford, Australia
Kay Cassell, United States
Jessica Mathewson, Italy
Betty Lumu, Egypt
Paola Valeria Durando, Canada

Student Affiliates

Darlene McPeek, United States
Suzana Ahmad, United States
Christine Smith, Canada

IFLA Conferences and Meetings
Singapore 2013

The World Library and Information Congress: 78th IFLA General Conference and Assembly, will take place in Singapore from 17–23 August 2013. *Theme:* Future Libraries: Infinite Possibilities

More information regarding the 79th IFLA General Conference and Assembly are available at http://conference.ifla.org/sites/default/files/files/wlic2013/ifla-2013-final-announcement.pdf and at http://conference.ifla.org/ifla79

Grants and sponsorship opportunities

Information on the following grants and sponsorship opportunities is now available from: http://conference.ifla.org/ifla79/conference-participation-grants

Conference participation grants. The Singapore Government is pleased to offer partial sponsorship for delegates of developing countries to attend the IFLA annual conference:

● Sponsorship for delegates of developing countries to attend WLIC 2013

Additional conference participation grants & awards.

● IFLA Academic & Research Libraries Section Essay Contest

● IFLA LIS Student Paper Award

● IFLA International Marketing Award

● Dr. Shawky Salem Conference Grant

● CILIP/IFLA Aspire Award

● Grants for CILIP members to attend WLIC

● Rovelstad Scholarship in International Librarianship

● CACUL IFLA Conference Bursary Award

● bourses francophones IFLA du Comité français international bibliothèques et documentation (cfibd)

● Reisekostenzuschüsse zur Teilnahme am Weltkongress Bibliothek und Information

Information on additional grants will be available from time to time. Please check the website for updates.

More information: Josche Ouwerkerk, Manager, Conferences and Business Relations. Email: josche.ouwerkerk@ifla.org

Singapore Satellite Meetings

Workshop on User Interaction Built on Library Linked Data (UILLD). Pre-conference to the 79th World Library and Information Conference. Jurong East Regional Library, Singapore, 16 August 2013.

The main objective of this workshop/pre-conference is to provide a platform for discussion of deployed services, concepts, and approaches for consuming Linked Data from libraries and other cultural heritage institutions. Special attention will be given to presenting working end user interfaces using Linked Data from both cultural heritage institutions (including libraries) and other datasets.

For further information about the workshop, please contact the workshops chairs at uilld2013@gmail.com *Website:* http://uilld2013.linkeddata.es/

Newspapers/ Genealogy and Local History (GEN-LOC) Sections Pre-conference Satellite Meeting. Singapore, 14–15 August 2013. *Theme:* Newspapers to the People.

This Pre-conference Satellite Meeting is jointly organised by the National Library of Singapore, the IFLA Newspapers Section, and the IFLA Genealogy and Local History Section.

More information: Frederick Zarndt, Chair, IFLA Newspapers Section. Tel. +1.801.361.3204. Fax +1.888.723.3204. Skype: frederickzarndt Email: frederick@frederickzarndt.com

Library Theory and Research Section Satellite Meeting. Singapore, 14–15 August 2013. *Theme:* How do we fit in the global knowledge environment? Researching the library's role.

Further information: Virginia Chapman, Publisher, Emerald Group Publishing Limited, Howard House, Wagon Lane, Bingley, BD16 1WA United Kingdom. Tel: 00 44 1274 515667. Fax: 00 44 1274 785200. Email: www.emeraldinsight.com

Lyon 2014

During the Closing Session in Helsinki Finland on 16 August, IFLA President Ingrid Parent officially announced the host location for the 2014 World Library and Information Congress: **Lyon, France**.

Interlending and Document Supply Conference 2013

13th IFLA Interlending and Document Supply Conference 2013. Peking University, Beijing, China, 16–18 October 2013.

The IFLA Document Delivery and Resource Sharing Section is pleased to announce that the China Academic Library and Information System (CALIS) has been selected to host the 13th IFLA Interlending and Document Supply Conference in 2013.

More information: Mary A. Hollerich, Co-Editor, *Interlending & Document Supply*, 1118 W. Washington Blvd., #3A, Oak Park, IL 60302, USA. Email: mary.hollerich@gmail.com Tel. +1 847-275-0666 (cell)

IFLA Publications

The Road to Information Literacy: Librarians as facilitators of learning. Edited by: Roisin Gwyer, Ruth Stubbings & Graham Walton. Berlin/Munich: De Gruyter Saur, 2012. ISBN 978-3-11-028084-5 (IFLA Publications 157) Euro 99,95 / for USA, Canada, Mexico US$ 140.00. Special price for IFLA members: Euro 79,95 / for USA, Canada, Mexico US$ 112.00.

Information literacy is increasingly being recognised as a necessary skill for life, work and citizenship – as well as for academic study – for all of us living in today's information society. In August 2012 a large number of librarians from across the world gathered to discuss this topic through workshops, presentations, networking and posters with an emphasis on how we develop our workforces to facilitate information literacy development. This volume includes 23 papers from a variety of countries and sectors.

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Bibliography "Impact and Outcome of Libraries". Compiled by Dr. Roswitha Poll. Available in PDF format document on the IFLA Statistics and Evaluation Section's web page at http://www.ifla.org/publi cations/publications-associated-with-the-s-e-section.

This new version of bibliography has 421 titles, the result of the work on the new ISO standard, ISO 16439: Methods and procedures for assessing the impact of libraries that is to be published in 2013. The number of titles has especially grown in information literacy, academic success, social impact, and financial value.

Abstracts

العدد 39 من مجلة الإفلا

تخفيف حدة الفقر من خلال الخدمات الاستراتيجية التي تُقدمها المكتبة العامة بنيجيريا في القرن الحادي والعشرين: نموذج

Bappah Magaji Abubakar

يحاول هذا البحث مناقشة الأدوار الاستراتيجية التي تلعبها المكتبات في برامج تخفيف حدة الفقر بنيجيريا في القرن الحادي والعشرين. وتُلقي الضوء على مُختلف هذه البرامج التي هدفت إلى مُكافحة الفقر والتي نفذتها الحكومات النيجيرية المتعاقبة. وبالرغم مما قدمته هذه الحكومات من خُطط للحد من الفقر وتخفيف حدته، مازال مُعدل الفقر المتزايد نذيرًا شديدًا بالخطر. كما أنه لم يتم بعد إدراك دور المكتبات في ذلك الصدد وخاصة المكتبات العامة. في ذلك الإطار، تبحث هذه الورقة البحثية الأدوار الاستراتيجية التي يُمكن ان تلعبها المكتبات لخفض مُعدلات الفقر في البلاد. ويُقدم البحث في نهايته بعض التوصيات التي من شأنها مُساعدة المكتبات العامة النيجيرية على القيام بدورها الذي تستحقه بفاعلية والمُشاركة الكاملة في برامج خفض مُعدلات الفقر.

توحيد مجموعاتنا الوثائقية بجعلها في صورة بصرية

Alex Byrne

تبحث هذه الورقة البحثية التحديات التي تواجه وضع المُقتنيات الرقمية والمادية في صورة بصرية للتمكين من اكتشافها واستخدامها، ويعود في بحثه إلى نماذج جديدة من المكتبات الأكاديمية والعامة بالإضافة إلى التحديات التي تواجهها المكتبات التي تمتلك مجموعة كبيرة من المُقتنيات التراثية مكتبة ولاية نيو ساوث ويلز، والتي حظيت بشهرة واحترام على المستوى العالمي لما لديها من مُقتنيات فريدة عن أستراليا والإقليم المُحيط بها. تواجه هذه المكتبة ومثيلاتها تحديًا في تقديم مُقتنياتها التراثية وما لديها من نسخ مَرقمنة وما لديها من مُقتنيات ومواد مُعاصرة مطبوعة ورقمية في مجموعة يُمكن للباحثين والطلاب والجمهور استكشافها.

صُنع القرار بناءً على احتياجات المُستخدم: نموذج جديد لتطوير خدمات ونظم المكتبات العامة:

Lynn Silipigni Connaway, Donna Lanclos, David White, Alison Le Cornu, Erin M. Hood

تتبع هذه الدراسة المعنية بالتطوير تحول بواعث وأشكال انخراط المُشاركين من الولايات المُتحدة الأمريكية والمملكة المُتحدة في التعامل مع التكنولوجيا والمعلومات خلال انتقالهم بين أربع مراحل تعليمية مُختلفة. تُقدم الطرق الكيفية والكمية ومنها الأساليب الاثنوجرافية مجموعات بيانات غاية في الثراء تُمكن من استخدام وسائل تحليل مُتعددة. وبدلًا من أن يتناول البحث سلوكيات السعي للوصول إلى المعلومات، فهو يستكشف كيف يحصل الجمهور على المعلومات بناءً على السياق والموقف على مدار فترة زمنية طويلة مع تحديد كيفية تغير سلوكياتهم في البحث في حال تغيرها.

المكتبة الوطنية النيجيرية تُعيد تدريب المكتبيين للعمل في البيئة الرقمية

Ezra Shiloba Gbaje

تتناول هذه الورقة البحثية إعادة تدريب المكتبة الوطنية النيجيرية، المكتبيين للعمل في البيئة الرقمية. كما تم في هذا البحث اللجوء إلى التحليل الوثائقي لمحتويات القرص المُدمج الذي يضم ورش العمل التدريبية التابعة لقسم تكنولوجيا المعلومات بالمكتبة في الفترة بين2007 و2011 لجمع بيانات من أجل هذه الدراسة. وكشفت نتائج هذا التحليل الوثائقي أن هذا القسم قد قام ومازال يقوم بدور حيوي في إعادة تدريب المكتبيين على العمل في البيئة الرقمية، من خلال ما عقده من ورش عمل عقدها تحت عنوان "المكتبات وتكنولوجيا المعلومات اليوم". وتشمل توصيات هذا البحث بتطوير الموضوعات التي تغطيها ورش العمل السنوية لتحقيق قدر أكبر من الكفاءة.

إعادة هوية أمانة المكتبات إلى الجذور التاريخية لفلسفات المهنة:

Sara Wingate Gray

تُعد "هوية المكتبي" مجالًا خلافيًا مُعلق بين الصراع بين المبادئ التقليدية "للمواطنة" والتحول الجاري منذ أواخر القرن العشرين إلى الاتجاه إلى الديمقراطية. قد يكون أخصائيو المكتبات الجُدد على وعي بالربط بين النظم الراسخة لتدرجهم المهني عندما لا تنتبه المؤسسات المهنية لمدى تأثير هذا التحول على تلك القيم. ومازال هذا السؤال الاساسي الذي يجب الإجابة عنه: كيف أثر ذلك التحول على إدارة واستخدام المعلومات والنماذج الجديدة التي تُقدم بها المكتبات المعلومات، والتي أثرت على هوية المهنة ككل. ماذا يعني أن تُطلق على نفسك مكتبي في القرن الحادي والعشرين؟ ستتبع هذه الورقة البحثية

لمُساعدتها في وضع استراتيجيات للتغلب على التحديات التي تواجه أداء قطاع التعليم. تُعد المكتبات جزءًا من اختصاص وزارة التربية والتعليم إلا أن البنك الدولي لم يُدخلها في خطة التطوير مُخرجًا إيها من عملية إصلاح قطاع التعليم. توضح الورقة البحثية الاستراتيجية التي طبقتها ناميبيا في الخدمات المكتبية والأرشيفية ليتم قبولها جزءًا من برنامج تنمية قطاع التعليم والتدريب لتغيير وضع قطاع المكتبات وتغيير دورها من مؤسسات للقراءة الترفيهية إلى مؤسسات تدعم التعليم والبحث العلمي والتمكين الاقتصادي والاحتياجات المعلوماتية اليومية.

يتوجب على المكتبات في يومنا هذا مواجهة التغير الدائم. تُلقي الورقة البحثية نظرة على المهارات القيادية التي يتطلبها التغيير الواسع النطاق في المكتبات. ويُمكن اكتساب مُعظم هذه المؤهلات خلال الدراسة في الجامعة للحصول على ليسانس علوم المكتبات والمعلومات. تُعد المعلومات والتواصل والمُشاركة، العوامل الأساسية في كل مشروعات التغيير. يؤكد بحثان كيفيان حول القيادة في المكتبات الأكاديمية والعامة في أوقات التغيير، بالإضافة إلى دراسة كمية في إحدى المكتبات الأكاديمية حول أثر أسلوب القيادة العليا للتغيير على القيادة الوسطى وعلى أعضاء الفريق، كما تؤكد هذه الدراسة على أهمية عوامل النجاح السابق ذكرها، وخاصة قدرة القادة على التواصل في أوقات التغيير.

أخصائيو المكتبات الأكاديمية وخدمات البيانات البحثية: تجهيزات واتجاهات

Carol Tenopir, Robert J. Sandusky, Suzie Allard, Ben Birch

العدد39 (2013) من مجلة الإفلا المُتخصصة، ص.:70-78

تُدرك الجهات الممولة للبحث العلمي أهمية البنية التحتية والخدمات؛ لتنظيم وحفظ البيانات البحثية وقد تم تحديد مكتبات البحث الأكاديمي كونها الأماكن التي يمكن فيها تأسيس خدمات بيانات بحثية، وتشمل هذه الخدمات التخطيط لإدارة البيانات وجمع المعلومات وعرضها بطريقة رقمية (الاختيار، الحفظ، الصيانة، التوثيق)، وعمل واصفات البيانات وتحويلها. نُعد تقريرًا عن الاستقصاءات التجريبية في مُمارسات المكتبيين في الولايات المُتحدة الأمريكية فيما يتعلق بمكتبات البحث الأكاديمي، وتأسيس قاعدة لمُشاركة المكتبيين في هذه المرحلة المُبكرة من التطوير الخدمي واسع النطاق. تتناول هذه الورقة البحثية على وجه الخصوص، آراء المكتبيين بشأن استعدادهم لتقديم خدمات البيانات البحثية (الخلفية والمهارات والتعليم)، واتجاهاتهم فصدد أهمية هذه الخدمات لمكتباتهم ومؤسساتهم والعوامل التي تُسهم إلى انخراط المكتبي في تقديم هذه الخدمات أو تمنعه عن ذلك.

مع تحيات مركز الإفلا للمكتبات الناطقة بالعربية

جذور فلسفة أمانة المكتبات بأشكالها المُتغيرة؛ لتحديد كيفية تشكيل الهوية المهنية، واختلاف شكل المكتبي الذي عرفه إدواردز وديوي كونه حافظًا ومُفهرسًا للكتب وصولاً إلى أوتلتوشيرا الذي يراه موثقًا ورانجاثان الذي يراه مُساعدًا كما يُقدم البحث أمثلة من المكتبيين المُعاصرين، مثل: لانكز كونه "مُنسق خلق المعرفة المُجتمعية". كما يتضمن البحث تحليلاً تاريخيًا لفلسفات أمانة المكتبات ويتناول المكتبيين المُتخصصين والذين يعملون في مجالات وبأساليب غير تقليدية وهو ما يُمكن أن يُساعد على الخروج من أزمة هوية علوم المكتبات والمعلومات وإثبات تاريخ أمانة المكتبات. يُقترح البحث أن يتم تشكيل هوية جديدة لأمانة المكتبات من خلال بحث فلسفاتها الأساسية والاستماع إلى أولئك الذين ليس بالضرورة أن يمتلكوا المؤهلات التقليدية للعمل في المكتبات أو بشكلها التقليدي، ولكن الذين يُعدون من أعضاء مُجتمع المكتبات بما يمتلكونه من مهارات فيما يتعلق بالمعلومات ومحو الأمية المعلوماتية. كما يعرض البحث أمثلة من التوعية والأنشطة لإيضاح كيفية تشكيل هذه الهوية الجديدة بأسلوب غاية في التجديد وبصورة بها قدر عالي من المُشاركة.

Form@doct: تصميم برامج تعليمية على الإنترنت لطلبة الدكتوراه في فرنسا

Marie-Laure Malingre, Alexandre Serres, Alain Sainsot, Hervé Le Men

العدد39 (2013) من مجلة الإفلا المُتخصصة، ص.:45-57

ومع تزايد أهمية محو الأمية المعلوماتية في برامج طلبة الدكتوراه يقتضي الأمر تقييم مزايا التعليم عبر الإنترنت في هذا المجال ومدى ملائمته لطلبة الدكتوراه. يسعى هذا التواصل للوصول إلى أربعة أهداف: عرض كيفية استخدام "Form@doct" الموقع الإلكتروني لطلبة الدكتوراه، موارده لتلبية احتياجات الطلبة، وإيضاح التحديات التي تواجهنا خلال التعلّم إلكترونيًا، وشرح البنية النهائية التي يُمكن للمحتوى التعليمي والتعلّم الإلكتروني اتخاذها لتحليل مدى الاستفادة من هذا الموقع الإلكتروني لاتباع منهجنا وتحقيق أهدافنا.

المكتبات تدعم أهداف التنمية القومية في ناميبيا:

Ellen Ndeshi Namhila, Ritva Niskala

العدد39 (2013) من مجلة الإفلا المُتخصصة، ص.:58-69

تشرح هذه الورقة البحثية الاستراتيجية التي تتبعها خدمات ناميبيا المكتبية والوثائقية لتغيير شكل مُجتمع شبكة المكتبات. نشأت فرصة تغيير شكل شبكة المكتبات عندما تلقى قطاع التعليم النامييبي تمويلاً؛ لتطوير هيكله الاستراتيجي لتحقيق ما يتطلبه قطاع التعليم لتحقيق رؤيته لعام2030. ودعت وزارة التربية والتعليم في عام2002 البنك الدولي

摘要

21世纪尼日利亚公共图书馆服务战略扶贫模型

Bappah Magaji Abubakar

本文试图探讨在21世纪尼日利亚扶贫项目中，公共图书馆的战略角色。文章列出了历届尼日利亚联邦政府推行的多种旨在消除贫困的扶贫项目。尽管历届政府不断推行消除贫困的计划，该国的贫困率飙升仍非常惊人。更重要的是，图书馆尤

其是公共图书馆在这方面的作用一直没有得到重视。在这种背景下，本文探讨了该国公共图书馆在减少的贫困率中的战略地位。文章最后给出了一些建议，以帮助尼日利亚公共图书馆积极发挥其应有的作用和/或充分参与减贫计划。

通过可视化联合馆藏

Alex Byrne
IFLA Journal 39 (2013) No. 1 pp. 15–19

本文探讨了通过可视化数字和物理馆藏使用新模型发现并使用学术和公共图书馆的挑战，以及像新南威尔士州立图书馆这样，面对庞大馆藏遗产的挑战。该图书馆因其澳大利亚及周边地区的独特馆藏而国际知名。该馆及其国际同行面临着巨大挑战，它们需要将馆藏遗产、数字化版本及其当代印刷品、多媒体和原生数字文献作为一个被揭示的资料库，并向研究人员、学生和公众展示。

以用户为中心的决策：发展学术图书馆服务和体系的新模型

Lynn Silipigni Connaway, Donna Lanclos, David White, Alison Le Cornu, Erin M. Hood
IFLA Journal 39 (2013) No. 1 pp. 20–29

这篇纵向研究追踪了美国和英国的参与者在四个教育阶段使用技术和信息的动机和形式的转变。本文使用了定量、定性及民族学的方法分别研究，产生了非常丰富的数据集合，采用了多种分析方法。本文没有综述信息搜寻习惯和使用的技术，而是探讨了在较长一段时期内，受试者如何从上下文和背景材料中获得他们所需信息，以明确他们的行为是否变化，以及是如何变化的。

数字工作环境下尼日利亚图书馆协会对图书馆员的再培训

Ezra Shiloba Gbaje
IFLA Journal 39 (2013) No. 1 pp. 30–36

本文调查了数字工作环境下尼日利亚图书馆协会(NLA)对图书馆员的再培训。除了个人观察，文章还使用了2007至2011年间尼日利亚图书馆协会信息技术组研习班培训光盘(CD)的文件分析用于收集研究数据。分析结果显示，尼日利亚图书馆协会信息技术组利用每年的"今日图书馆与信息技术"研习班，在数字工作环境下的图书馆员再培训中扮演着重要的角色。文章最后建议，每年研习班涵盖的主题应更合理化以提高效率。

从专业理念的历史根源出发定位图书馆：当今(与未来)全新的图书馆员定位

Sara Wingate Gray
IFLA Journal 39 (2013) No. 1 pp. 37–44

图书馆员的定位是一个有争议的领域，似乎陷入了从传统的"公民"原则向20世纪后期向用户至上的民主精神转变之间的价值观之争。新的从业人员可能对将自身的专业层次结构与现有的体系联系起来有些警惕，专业协会可能会被认为没有注意到价值观转变的影响，然而关键问题在于：如何转向"信息管理/消费"，图书馆读者现在是"消费者"，由私人或社会企业规定的图书馆新模式将在整体上对职业定位产生怎样的影响，21世纪，称自己为图书馆员意味着什么？本文追溯了图书馆专业理念的根源及其变化，明确了职业定位如何形成，从爱德华兹和杜威发起的"图书馆员"作为图书馆的管理者/编目者或图书馆"经济家"，到保罗·奥特勒和谢拉的"文档管理者"，到阮冈纳赞的图书馆员"帮手"，以及现在化身为像兰克斯的"社区知识创造的推动者"。本文结合对图书馆专业理念的历史分析阐述了一种论点：现代图书馆员专业人员在非传统领域和方法下，可能有助于提出一种应对图书馆与信息科学的身份危机的路线，并以图书馆的历史轨迹为佐证。文章提出，通过调查图书馆的内在专业理念，听取那些不一定有传统图书馆资格证书或在传统环境下工作，而是作为具有信息素养技巧的信息专业人士的意见，可以获得打造新定位的方法。文章给出了读者/非读者的拓展活动的例子，阐明了这个新定位将如凤凰涅槃般以一种全新而又引人入胜的形式重生。

Form@doct：法国博士生设计创新课的网络教程

Marie-Laure Malingre, Alexandre Serres, Alain Sainsot, Hervé Le Men
IFLA Journal 39 (2013) No. 1 pp. 45–57

信息素养在博士生课程中已成为一个日渐增长的主题。在这种情况下，考虑到博士具体的工作条件和学习方法，评估网络教育的效益以及是否适合博士生显得十分必要。本文的目的有四个：展示作为博士生网络门户的Form@doct，它还用其资源响应了这种需求；叙述网络学习遇到的挑战；解释学习内容、整体架构和网络教学可采用的最终结构；通过初步分析，评估这个门户的使用是否能证明我们方法的有效性。

图书馆支持纳米比亚国家发展目标

Ellen Ndeshi Namhila, Ritva Niskala
IFLA Journal 39 (2013) No. 1 pp. 58–69

本文描述了纳米比亚图书和档案馆服务局改变公共/社区图书馆网络的战略。纳米比亚教育部门收到了用于发展战略框架的大笔资金，以实施教育部门在展望2030——纳米比亚发展战略中的要求。2002年，教育部邀请世界银行援助其发展战略，以克服教育部门遇到的挑战。虽然图书馆网络是教育部的工作之一，世界银行小组却没有将图书馆看做一个重要的发展领域，并建议将全国的图书馆网络从教育部门的改革中去掉。本文描述了纳米比亚图书与档案馆服务局采用的战略，

使得图书馆部门纳入教育和培训部门改进计划(ETSIP)，确保全国范围内图书馆部门运作资金战略，将公共/社区图书馆的焦点从休闲阅读转移到支持教育、研究、经济赋权的机构以及日常信息需求上来。

学术图书馆员与研究数据服务；准备与态度

Carol Tenopir, Robert J. Sandusky, Suzie Allard, Ben Birch
IFLA Journal 39 (2013) No. 1 pp. 70–78

研究资助机构承认基础设施和服务对组织和保存研究数据的重要性，而学术研究图书馆被认为是提供这些研究数据服务(RDS)的场所。研究数据服务包括数据管理计划、数字保存(筛选、保存、维护和归档)以及元数据创建和转换。本文提供了对美国和加拿大的学术研究图书馆进行研究数据服务的经验主义调查结果，在这一普遍服务发展的早期阶段确立了图书馆员服务的基线。文章特别考察了被调查的图书馆员提供研究数据服务的准备条件(背景、技能及教育)，他们关于研究数据服务对其图书馆和机构重要性的态度，以及图书馆员从事研究数据服务的有利及不利因素。

Sommaires

Poverty alleviation through strategic public library services in Nigeria in the 21st century: a model

[Réduire la pauvreté au moyen de services stratégiques proposés par les bibliothèques publiques au Nigéria au 21e siècle : un modèle]

Bappah Magaji Abubakar
IFLA Journal 39 (2013) No. 1 pp. 4–14

Cet article aborde le rôle stratégique des bibliothèques publiques au Nigéria dans le cadre des programmes de réduction de la pauvreté au 21e siècle. Les divers programmes visant à combattre la pauvreté mis en place par les gouvernements fédéraux successifs du Nigéria sont mis en évidence. Malgré les plans de réduction de la pauvreté mis en place par ces gouvernements, le taux grandissant de pauvreté dans ce pays est toujours particulièrement alarmant. En outre, les bibliothèques,

en particulier les bibliothèques publiques, n'ont pas véritablement joué leur rôle dans ce cadre. Dans ce contexte, cet article examine le rôle stratégique des bibliothèques publiques pour réduire le taux de pauvreté dans le pays. Il conclut en faisant des recommandations susceptibles d'aider les bibliothèques publiques nigérianes à jouer activement le rôle qui leur revient et/ou à participer pleinement aux programmes de réduction de la pauvreté.

Uniting the corpus of our collections through visualization

[Unifier le corpus de nos collections par le biais de la visualisation]

Alex Byrne
IFLA Journal 39 (2013) No. 1 pp. 15–19

Cet article explore les défis pour visualiser les collections numériques et physiques afin de permettre leur

découverte et leur utilisation, en se référant aux nouveaux modèles de bibliothèques universitaires et publiques ainsi qu'aux défis particuliers auxquels sont confrontées les bibliothèques en ce qui concerne leurs importantes collections patrimoniales, comme c'est le cas de la Bibliothèque nationale de Nouvelle-Galles du Sud. Cette bibliothèque est internationalement connue pour ses collections uniques sur l'Australie et la région environnante. La bibliothèque et ses homologues internationaux doivent relever le défi consistant à présenter leurs collections patrimoniales, leurs versions numérisées et leurs matériels contemporains imprimés, sous forme de médias ou sous forme numérique dès l'origine, comme un corpus que peuvent découvrir les chercheurs, les étudiants et le public.

User-centered decision making: a new model for developing academic library services and systems

[Processus décisionnel axé sur les utilisateurs : un nouveau modèle pour développer des services et des systèmes de bibliothèques universitaires]

Lynn Silipigni Connaway, Donna Lanclos, David White, Alison Le Cornu, Erin M. Hood
IFLA Journal 39 (2013) No. 1 pp. 20–29

Cette étude longitudinale suit l'évolution de la motivation et des formes d'engagement des participants américains et britanniques à l'égard de la technologie et de l'information, alors qu'ils passent par quatre stades d'enseignement. Les méthodes quantitatives et qualitatives, y compris méthodes ethnographiques qui consacrent une attention individuelle aux sujets, fournissent un ensemble très riche de données permettant des méthodes multiples d'analyse. Au lieu de rapporter des informations générales portant sur les habitudes et l'utilisation des technologies, cette étude examine comment les sujets obtiennent leurs informations en se basant sur le contexte et l'état de leurs besoins au cours d'une période de temps prolongée, identifiant si leurs comportements changent et de quelle façon.

Re-training of librarians for the digital work environment by the Nigerian Library Association

[Reconversion des bibliothécaires à un environnement de travail numérique par l'Association nigériane des Bibliothèques]

Ezra Shiloba Gbaje
IFLA Journal 39 (2013) No. 1 pp. 30–36

Cet article examine la reconversion des bibliothécaires à un environnement de travail numérique par

l'Association nationale des Bibliothèques (National Library Association, NLA). En plus d'observations personnelles, l'auteur a utilisé une analyse documentaire des contenus du disque compact (CD) des ateliers de formation de la section de la NLA, ateliers consacrés aux technologies de l'information au cours de la période allant de 2007 à 2011, afin de rassembler des données pour cette étude. Les constatations de l'analyse révèlent que la section de la NLA consacrée aux technologies de l'information a joué un rôle vital dans la reconversion des bibliothécaires à un environnement de travail numérique, lors de leurs ateliers annuels consacrés aux technologies contemporaines de l'information et des bibliothèques. Parmi les recommandations : rationaliser les sujets abordés au cours des ateliers annuels pour plus d'efficacité.

Locating librarianship's identity in its historical roots of professional philosophies: towards a radical new identity for librarians of today (and tomorrow)

[Situer l'identité bibliothécaire dans son contexte historique des idéologies professionnelles : vers une identité radicalement nouvelle pour les bibliothécaires d'aujourd'hui (et de demain)]

Sara Wingate Gray
IFLA Journal 39 (2013) No. 1 pp. 37–44

La notion « d'identité bibliothécaire » est un domaine prêtant à polémique, prise en apparence dans une guerre des valeurs entre les principes traditionnels de « citoyenneté » et le passage à une démocratie de consuméristes dès la fin du 20e siècle. Les nouveaux professionnels peuvent hésiter à s'associer aux systèmes établis de leurs propres hiérarchies professionnelles, lorsque des groupements professionnels peuvent être perçus comme n'ayant pas accordé assez d'attention à la façon dont ce changement de valeurs s'est produit ; c'est cependant la question essentielle à aborder : quel a été l'impact sur l'identité de la profession dans son ensemble de ce passage à une « gestion/consommation des informations », du fait que l'adhérent d'une bibliothèque est maintenant « client » et des nouveaux modèles de services bibliothécaires proposés par des entreprises privées ou des organismes sociaux ? Que signifie être bibliothécaire au 21e siècle ? Cet article identifie les origines de la philosophie de la bibliothéconomie sous ses formes changeantes, afin de déterminer comment se forment les identités professionnelles, en partant du bibliothécaire des origines décrit par Edwards et Dewey comme gardien des livres/catalogueur ou « économiste de bibliothèque », pour aller jusqu'au

« documentationaliste » d'Otlet et Shera, à l'assistant bibliothécaire de Ranganathan ainsi qu'aux incarnations contemporaines, par exemple le bibliothécaire de Lanke comme « facilitateur de création de savoir communautaire ». En incorporant l'analyse historique des racines des philosophies de la bibliothéconomie, cet article développe une thèse évoquant la façon dont les bibliothécaires d'aujourd'hui, qui exercent leur métier dans des domaines et de façons non traditionnels, peuvent aider à suggérer une issue hors de la chambre d'écho de la crise d'identité des Sciences de l'Information et des Bibliothèques, tout en démontrant le parcours historique de la bibliothéconomie. Il suggère qu'on peut identifier une façon de forger une nouvelle identité en étudiant les philosophies à la base de la bibliothéconomie et en écoutant ceux qui n'ont pas nécessairement des qualifications bibliothécaires traditionnelles ou qui ne travaillent pas dans des cadres traditionnels, mais en tant que membres de la profession en exerçant des compétences de maîtrise de l'information. Des exemples d'initiatives et d'activités s'adressant aux adhérents et aux non-adhérents sont fournis pour illustrer comment il peut être donné forme à cette nouvelle identité afin qu'elle renaisse, telle le phénix, sous une forme radicalement nouvelle, engageante et engagée.

Form@doct: Designing innovative online tutorials for PhD students in France

[Form@doct : créer des systèmes d'apprentissage en ligne pour les doctorants en France]

Marie-Laure Malingre, Alexandre Serres, Alain Sainsot, Hervé Le Men
IFLA Journal 39 (2013) No. 1 pp. 45–57

À l'heure où la maîtrise de l'information occupe une place de plus en plus importante dans les programmes de doctorats, il semble nécessaire d'évaluer les avantages d'une formation en ligne dans ce domaine et sa pertinence pour les doctorants, en tenant compte de leurs conditions de travail et méthodes d'apprentissage spécifiques. Les objectifs de cette communication sont de quatre ordres : montrer comment Form@doct, un portail en ligne pour les doctorants, utilise ses ressources pour répondre à ce besoin ; décrire les défis qui se posent en matière d'e-learning ; expliquer la forme que pourraient finalement prendre le contenu d'apprentissage, l'architecture générale et l'enseignement en ligne ; et déterminer, par une première analyse, si l'usage qui est fait de ce portail justifie notre démarche.

Libraries supporting national development goals in Namibia

[Soutien des bibliothèques aux objectifs nationaux de développement en Namibie]

Ellen Ndeshi Namhila, Ritva Niskala
IFLA Journal 39 (2013) No. 1 pp. 58–69

L'article décrit la stratégie du Service namibien des bibliothèques et des archives (SNBA) pour transformer le réseau public/communautaire de bibliothèques. La possibilité de transformer le réseau de bibliothèques s'est présentée lorsque le secteur namibien de l'éducation a reçu un financement important pour développer son cadre stratégique et mettre en œuvre les exigences faites au secteur de l'éducation dans le cadre de Vision 2030, la stratégie namibienne de développement. En 2002, le Ministère de l'Éducation a demandé à la Banque mondiale d'apporter son aide aux stratégies de développement devant permettre de surmonter les défis en matière de performances du secteur de l'éducation. Bien que le réseau de bibliothèques soit placé sous la responsabilité du Ministère de l'Éducation, l'équipe de la Banque mondiale n'a pas identifié les bibliothèques comme des zones critiques devant être développées, mais a recommandé de laisser le réseau national de bibliothèques en-dehors de la réforme du secteur de l'éducation. L'article décrit la stratégie appliqué par la SNBA pour faire inclure le secteur bibliothécaire dans le Programme d'amélioration des secteurs de l'éducation et de la formation (Education and Training Sector Improvement Programme, ETSIP) et pour trouver les fonds nécessaires à une stratégie nationale de restructuration du secteur bibliothécaire, modifiant l'orientation des bibliothèques publiques/communautaires, les faisant passer de la lecture récréative à des institutions soutenant l'éducation, la recherche, l'autonomisation économique et les besoins quotidiens en matière d'information.

Academic librarians and research data services: preparation and attitudes

[Bibliothécaires universitaires et services de recherche de données : préparation et attitudes]

Carol Tenopir, Robert J. Sandusky, Suzie Allard, Ben Birch
IFLA Journal 39 (2013) No. 1 pp. 70–78

Les organismes de financement de la recherche reconnaissent l'importance de l'infrastructure et des services pour organiser et conserver les données de recherche, et les bibliothèques universitaires qui se

consacrent à la recherche ont été identifiées comme des endroits où baser ces services de recherche de données (SRD). Les services de recherche de données comprennent la planification de la gestion des données, la conservation numérique (sélection, conservation, entretien et archivage) ainsi que la création et la conversion des métadonnées. Les auteurs rendent compte des résultats d'une étude empirique sur les pratiques des bibliothécaires relatives aux SRD dans les bibliothèques universitaires de recherche américaines et canadiennes, établissant un niveau de référence portant sur l'implication des bibliothécaires à ce stade précoce du développement de services étendus. L'article examine plus particulièrement les opinions des bibliothécaires interrogés, pour déterminer dans quelle mesure ils sont disposés à fournir des SRD (antécédents, compétences et formation), leurs attitudes concernant l'importance des SRD pour leurs bibliothèques et institutions, et les facteurs qui contribuent à l'engagement des bibliothécaires en faveur des SRD ou l'empêchent.

Zusammenfassungen

Poverty alleviation through strategic public library services in Nigeria in the 21st century: a model

[Abbau der Armut durch strategische Dienstleistungen der öffentlichen Bibliotheken in Nigeria im 21. Jahrhundert: ein Modell]

Bappah Magaji Abubakar
IFLA Journal 39 (2013) No. 1 pp. 4–14

Dieser Beitrag versucht, die strategischen Rollen der öffentlichen Bibliotheken in Nigeria im Rahmen der Programme zum Abbau der Armut im 21. Jahrhunder zu besprechen. Dabei werden auch die einzelnen Programme beleuchtet, die von den aufeinander folgenden Regierungen von Nigeria zum Abbau der Armut ins Leben gerufen worden sind. Trotz der Armutminderungspläne der aufeinander folgenden Regierungen ist die sprunghafte Zunahme der Armut in diesem Land noch immer sehr beunruhigend. In dieser Hinsicht ist außerdem die Rolle der Bibliotheken, insbesondere der öffentlichen Bibliotheken, noch nicht realisiert worden. In diesem Zusammenhang analysiert der vorliegende Beitrag die strategischen Rollen der öffentlichen Bibliotheken bei der Armutsbekämpfung in diesem Land. Abschließend präsentiert er eine Reihe von Empfehlungen, mit deren Hilfe die öffentlichen Bibliotheken in Nigeria aktiv die Funktion bekleiden können, die ihnen zukommt beziehungsweise sich voll an den Programmen zur Armutsbekämpfung beteiligen können.

Uniting the corpus of our collections through visualization

[Zusammenführung unseres Sammlungskorpus durch Visualisierung]

Alex Byrne
IFLA Journal 39 (2013) No. 1 pp. 15–19

Dieser Artikel analysiert die Herausforderungen im Zusammenhang mit der Visualisierung digitaler und physikalischer Sammlungen, um deren Entdeckung und Nutzung im Rahmen neuer Modelle für wissenschaftliche Bibliotheken und öffentliche Bibliotheken zu ermöglichen, sowie die speziellen Herausforderungen der Bibliotheken mit umfassenden Kulturerbe-Sammlungen, wie es beispielsweise bei der State Library of New South Wales der Fall ist. Diese Bibliothek ist international für ihre einzigartigen Sammlungen über Australien und die umliegenden Regionen bekannt. Diese Bibliothek und ihre internationalen Peers sehen sich nun mit der Herausforderung konfrontiert, ihre Kulturerbe-Sammlungen, ihre digitalisierten Versionen sowie ihre zeitgenössischen Druck-, Medien- und digital erzeugten Materialien als einen Korpus zu präsentieren, den die Forscher, die Studenten und die Öffentlichkeit noch entdecken müssen.

User-centered decision making: a new model for developing academic library services and systems

[Benutzerzentrierte Entscheidungspraxis: ein neues Modell zur Entwicklung wissenschaftlicher Bibliotheksservices und Systeme]

Lynn Silipigni Connaway, Donna Lanclos, David White, Alison Le Cornu, Erin M. Hood
IFLA Journal 39 (2013) No. 1 pp. 20–29

Diese Längsschnittstudie verfolgt die Veränderungen in Bezug auf die Motivationen und die Arten des Engagements von Teilnehmern aus Großbritannien und den USA im Zusammenhang mit der Technologie- und Informationskompetenz beim Durchlaufen von vier Bildungsphasen. Die quantitativen und qualitativen Verfahren, einschließlich ethnographischer Methoden, die sich einzeln mit diesen Themen befassen, liefern

einen reichhaltigen Datensatz, der mehrere analytische Ansätze ermöglicht. Anstatt die allgemeinen Gewohnheiten der Befragten bei der Informationssuche zu katalogisieren und den Umgang mit der Technologie zu erforschen, untersucht diese Studie, wie die Probanden ihre Informationen langfristig in Abhängigkeit vom jeweiligen Kontext und der Situation ihrer Bedürfnisse finden und stellt dabei auch fest, ob und wie sich ihre Verhaltensweisen ändern.

Re-training of librarians for the digital work environment by the Nigerian Library Association

[Weiterbildung der Bibliothekare für das digitale Arbeitsumfeld durch die Nigerian Library Association]

Ezra Shiloba Gbaje

Dieser Beitrag befasst sich mit der Fortbildung der Bibliothekare als Vorbereitung auf das digitale Arbeitsumfeld durch die National Library Association (NLA). Abgesehen von der persönlichen Beobachtung wurde auch eine Dokumentaranalyse des Inhalts des Compact Disc (CD) für die Schulungskurse der Abteilung für Informationstechnologie der NLA (Information Technology Section) im Zeitraum von 2007 bis 2011 verwendet, um Daten für diese Studie zu sammeln. Die Ergebnisse dieser Analyse haben gezeigt, dass die Abteilung für Informationstechnologie der NLA (Information Technology Section der Nigerian Library Association) mit ihren jährlichen „Library and Information Technology Today" - Workshops eine entscheidende Rolle bei der Weiterbildung der Bibliothekare und deren Vorbereitung auf das digitale Arbeitsumfeld gespielt hat. Empfohlen wird in diesem Zusammenhang die Straffung der Themen, die bei den jährlichen Workshops zur Sprache kommen, um einen größeren Wirkungsgrad zu erzielen.

Locating librarianship's identity in its historical roots of professional Philosophien: towards a radical new identity for librarians of today (and tomorrow)

[Verortung der Identität des Bibliothekswesens in seinen historischen Wurzeln der Berufsstandsphilosophien – zu einer radikal neuen Identität für die Bibliothekare von heute (und morgen)]

Sara Wingate Gray

Die „Identität der Bibliothekare" ist ein umstrittenes Thema, das anscheinend in den Sog der Wertediskussion zwischen den traditionellen Prinzipien der „Bürgerschaft" und der Demokratie der Verbraucher im späten 20. Jahrhundert geraten ist. Die Berufsanfänger sind nicht unbedingt geneigt, sich mit den etablierten hierarchischen Systemen ihres eigenen Berufsstands zu identifizieren, wenn die Berufsverbände den Eindruck erwecken, dass sie nicht genügend darauf geachtet haben, wie diese Verschiebung der Werte zustande gekommen ist. Und doch ist dies die Schlüsselfrage: In welcher Weise hat sich dieser Wandel in Richtung „Informationsmanagement/Verbrauch" auf die Berufsidentität insgesamt ausgewirkt, angesichts der Tatsache, dass der Bibliotheksbesucher nun als „Kunde" bezeichnet wird und neue Modelle der von privaten oder sozialen Unternehmen erbrachten Bibliotheksservices eingeführt wurden? Was bedeutet es, wenn man sich im 21. Jahrhundert als Bibliothekar bezeichnet? Dieser Artikel verfolgt die Wurzeln der Philosophie des Bibliothekswesens sowie ihre Formveränderung, um festzustellen, wie berufliche Identitäten entstehen. Die Palette reicht von dem „Bibliothekar" von Edwards und Dewey, der als Buchhalter/ Titelaufnehmer oder „Spar-Experte" in der Bibliothek fungiert, über den „Dokumentationsspezialisten" von Otlet and Shera, den „Bibliothekshelfer" von Ranganathan bis hin zu den heutigen Inkarnationen wie beispielsweise dem Bibliothekar von Lanke als „Community Knowledge Creation Facilitator". Dieser Artikel verfolgt die historische Analyse bis zu den Wurzeln der Philosophien des Bibliothekswesens zurück und entwickelt daraus eine These zur Beantwortung der Frage, wie die heutigen Bibliothekare, die in nicht-traditionellen Bereichen und auf anderen Wegen tätig sind, dabei helfen können, einen Ausweg aus der LIS-Echokammer der Identitätskrise zu finden. Außerdem wird die historische Entwicklung des Bibliothekswesens nachvollzogen. Die Autorin meint, dass durch die Analyse der dem Bibliothekswesen zugrunde liegenden Philosophien und durch Befragung derjenigen, die nicht unbedingt traditionelle Bibliotheksqualifikationen besitzen oder in traditionellen Settings tätig sind, sondern vielmehr als Mitglieder des Berufsstandes ihre Informationskompetenzen einbringen, ein Weg zu einer neuen Identität gefunden werden kann. In diesem Zusammenhang werden auch Beispiele für die externe Betreuung der Mitglieder / Nicht-Mitglieder und Aktivitäten angeführt, um zu zeigen, wie diese neue Identität so gestaltet werden kann, dass sie – einem Phönix gleich – in einer radikal neuen, verbindlichen und engagierten Weise aus der Asche hervorsteigt.

Form@doct: Designing innovative online tutorials for PhD students in France

[Design innovativer Online-Tutorials für PhD-Studenten in Frankreich]

Marie-Laure Malingre, Alexandre Serres, Alain Sainsot, Hervé Le Men
IFLA Journal 39 (2013) No. 1 pp. 45–57

Zu einer Zeit, wo die Informationskompetenz im Dokoratsstudium an Bedeutung gewinnt, erscheint es notwendig, die Vorteile der Online-Bildung in diesem Bereich zu kartieren und ihre Eignung für Doktoranden angesichts ihrer spezifischen Arbeitsbedingungen und Lernmethoden festzustellen. Dieser Artikel hat vier Zielsetzungen: Er will zeigen, wie Form@doct, ein Online-Portal für Doktoranden, seine Ressourcen zur Erfüllung dieser Wünsche nutzt. Es möchte die Herausforderungen des E-Learning aufzeigen. Es will eine endgültige Struktur für die Lerninhalte, die allgemeine Architektur und das Online-Teaching vorschlagen und in einer ersten Analyse feststellen, ob die Nutzung dieses Portals unsere Vorgehensweise validiert.

Libraries supporting national development goals in Namibia

[Bibliotheken unterstützen nationale Entwicklungsziele in Namibia]

Ellen Ndeshi Namhila, Ritva Niskala
IFLA Journal 39 (2013) No. 1 pp. 58–69

Dieser Artikel beschreibt die Strategie des Namibia Library and Archives Service (NLAS) bei der Umstrukturierung des Verbundes der öffentlichen Bibliotheken / Gemeindebibliotheken. Die Möglichkeit zur Umstrukturierung des Bibliotheksverbundes ergab sich, als der Bildungssektor in Namibia umfassende finanzielle Mittel zur Entwicklung seines strategischen Rahmens und zur Durchsetzung gewisser Voraussetzungen im Bildungssektor für Vision 2030, die Entwicklungsstrategie von Namibia, erhielt. Im Jahr 2002 hat das Bildungsministerium die Weltbank eingeladen, die Entwicklung geeigneter Strategien zu unterstützen, mit denen sich die Herausforderungen im Zusammenhang mit den Leistungen des Bildungswesens bewältigen lassen. Obwohl der Bibliothekenverbund dem Mandat des Bildungsministeriums unterliegt, ist das Weltbankteam nicht zu der Schlussfolgerung gelangt, dass die Bibliotheken als kritischer Faktor einzustufen sind, der der Entwicklung bedarf. Es hat vielmehr empfohlen, den landesweiten Bibliotheksverbund von der Reform des Bildungssektors auszuklammern. Der vorliegende Artikel beschreibt die Vorgehensweise des NLAS in der Bemühung, den Bibliothekssektor in das Education and Training Sector Improvement Programme (ETSIP) aufnehmen zu lassen und finanzielle Mittel für eine landesweite Umstrukturierung des Bibliothekssektors zu erhalten, wobei der Schwerpunkt der öffentlichen Bibliotheken / Gemeindebüchereien nicht mehr so stark auf dem Lesen zu Erholungszwecken liegt, sondern wobei sie vielmehr zu Institutionen werden, die der Bildung, der Forschung, den wirtschaftlichen Mitwirkungsmöglichkeiten und dem täglichen Informationsbedarf zuträglich sind.

Academic librarians and research data services: preparation and attitudes

[Wissenschaftliche Bibliothekare und Forschungsdatenservices: Vorbereitung und Einschätzungen]

Carol Tenopir, Robert J. Sandusky, Suzie Allard, Ben Birch
IFLA Journal 39 (2013) No. 1 pp. 70–78

Die Vergabestellen für Forschungsgelder verstehen die Bedeutung der Infrastruktur und der Dienstleistungen für die Organisation und Konservierung von Forschungsdaten, und die wissenschaftlichen Forschungsbibliotheken sind anerkannte Standorte für diese Forschungsdatendienste (Research Data Services, RDS). Forschungsdatenservices beinhalten die Datenmanagementplanung, digitale Kuration (Auswahl, Konservierung, Wartung und Archivierung) und die Erstellung und Konvertierung entsprechender Metadaten. Dabei werden auch die Ergebnisse einer empirischen Untersuchung der RDS-Praxis bei den Bibliothekaren in wissenschaftlichen Forschungsbibliotheken in den USA und Kanada vorgestellt und es wird eine Basislinie in Bezug auf das Engagement der Bibliothekare in dieser frühen Phase der Service-Entwicklung auf breiter Front vorgegeben. Insbesondere befasst sich dieser Beitrag mit den Meinungen der befragten Bibliothekare in Bezug auf ihre Bereitschaft, RDS anzubieten (Hintergrund, Kompetenzen und Ausbildung), ihre Einschätzungen der Bedeutung der RDS für ihre Bibliotheken und Institutionen sowie die Faktoren, die das Engagement der Bibliothekare für die RDS stärken oder unterbinden.

Рефераты статей

Борьба с бедностью и нищетой при помощи стратегических услуг общественных библиотек в Нигерии в 21-м веке: модель

Баппа Магаджи Абубакар
IFLA Journal 39 (2013) No. 1 pp. 4–14

В данной работе предпринята попытка обсудить стратегические роли общественных библиотек Нигерии в программах борьбы с бедностью в 21-м веке. Стала доступной информация о различных программах борьбы с бедностью и нищетой, направленных на преодоление бедности, которые последовательно принимались сменяющими друг друга Федеральными Правительствами Нигерии. Несмотря на проекты по снижению уровня бедности, представленные правительствами, быстро растущие масштабы бедности в стране по-прежнему вызывают большую тревогу. Кроме того, до настоящего момента не осознана роль, которую в данном деле могут сыграть библиотеки, в частности, общественные библиотеки. В данном контексте в этой работе анализируются стратегические функции, выполняемые общественными библиотеками в рамках снижения уровня бедности в стране. В заключении приводятся некоторые рекомендации, которые могут помочь общественным библиотекам Нигерии активно играть свою заслуженную роль и/или в полной мере участвовать в программах борьбы с бедностью и нищетой.

Визуализация как средство объединения наших коллекций в общий фонд

Алекс Бирн
IFLA Journal 39 (2013) No. 1 pp. 15–19

В настоящей работе исследуются вопросы визуализации как цифровых, так и материальных коллекций для способствования их открытию и использованию применительно к новым моделям для академических и общественных библиотек, а также конкретные задачи, стоящие перед библиотеками с большими коллекциями, представляющими культурно-историческую ценность, такими, как Государственная библиотека Нового Южного Уэльса. Эта библиотека имеет международную известность благодаря своей уникальной коллекции, касающейся Австралии и близлежащих регионов. Она и ее международные собратья решают задачу, как представить свои ценнейшие коллекции, свои оцифрованные версии и свои современные печатные, медийные и изначально цифровые материалы в качестве фонда, который должен стать открытием для исследователей, студентов и широкой общественности.

Принятие решений, основанное на интересах пользователя: новая модель развития услуг и систем академических библиотек

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IFLA Journal 39 (2013) No. 1 pp. 20–29

В этом долгосрочном исследовании, проводимом в США и Великобритании, отслеживаются перемены в мотивации участников и в формах их взаимодействия с технологиями и информацией в процессе перехода между четырьмя этапами образования. Количественные и качественные методы исследования, включая этнографические методы, которые уделяют предметам исследования особое внимание, в итоге приносят богатый информационный урожай, анализ которого можно также осуществлять при помощи различных методов. Вместо отчета об общих моделях поиска информации и применения технологий настоящее исследование рассматривает, как в течение продолжительного промежутка времени субъекты получают информацию, исходя из конкретного контекста и ситуации, определяющей их потребности, и выявляет, имеет ли место изменение их поведения и в чем оно выражается.

Переподготовка библиотекарей силами Библиотечной ассоциации Нигерии для работы в условиях цифровой среды

Езра Шилоба Гбайе
IFLA Journal 39 (2013) No. 1 pp. 30–36

В данной работе рассматривается вопрос переподготовки силами Библиотечной ассоциации Нигерии (NLA) библиотекарей для работы в условиях цифровой среды. Для сбора информации в рамках настоящего исследования наряду с личными наблюдениями был выполнен документальный анализ содержания компакт-диска (CD) для учебных семинаров Секции информационных технологий NLA за период с 2007 по 2011 годы. В результате анализа было выявлено, что Секция информационных технологий Библиотечной ассоциации Нигерии играет жизненно важную роль в деле переподготовки

библиотекарей для работы в условиях цифровой среды в ходе проведения ежегодных учебных семинаров "Библиотека и информационные технологии сегодня". Рекомендации включают в себя систематизацию тем, освещаемых в ходе ежегодных семинаров, для увеличения эффективности последних.

Поиск сущности библиотекарства в его исторических корнях профессиональной философии: на пути к радикально новому восприятию библиотекарей настоящего (и будущего)

Сара Уингейт Грей

"Сущность библиотекаря" - поле для баталий, предположительно вовлеченное в войну ценностей между традиционными принципами "гражданственности" и произошедшим в конце 20-го века переходом к демократии консьюмеристов. Новые профессионалы, возможно, с опаской отнесутся к ассоциации со сложившимися системами своих собственных профессиональных иерархических лестниц, когда профессиональные ассоциации могут быть восприняты как недостаточная внимательность к фактически свершенному смещению системы ценностей, однако это и есть главный вопрос: как переход к принципам "управления информацией/потребления информации"; восприятия члена библиотеки как "потребителя"; а также к новым моделям предоставления библиотечных услуг частными и общественными организациями повлиял на восприятие сущности профессии в целом? Что это значит, называться Библиотекарем в 21-м веке? В данной работе исследуются корни философии Библиотекарства во всей его переменчивости с целью определить, как формируется профессиональное самосознание, начиная от "библиотекаря" как хранителя/каталогизатора книг или библиотечного "экономайзера", каким он предстает у Эдвардса и Дьюи; до "Документалиста" у Отлета и Шера; "помощника" у Ранганатана, и вплоть до его современного воплощения, подобного библиотекарю Ланкеса, являющегося "лицом, способствующим созданию общественного знания". Настоящая работа содержит исторический анализ корней философии библиотекарства и развивает положение о том, как современные профессиональные библиотекари, идущие новыми дорогами и вовлеченные в непривычные для себя сферы деятельности, могут помочь в поиске пути из эхо-камеры науки об информации и библиотечном деле, в которой царит кризис самоопределения, наряду со свидетельством следа в истории, который оставили библиотекари. В работе содержится предложение, суть которого заключается в том, что, изучая философию, лежащую в основе библиотекарства, а также прислушиваясь к мнению тех, кто, возможно, не имеет квалификации, традиционной для библиотечного дела, и опыта работы в традиционных условиях, но кто работает как представитель профессии в сфере информации и навыков информационной грамотности, можно увидеть процесс формирования нового самосознания. Примеры просветительской деятельности участников/не участников приводятся в качестве иллюстрации того, как можно сформировать новое самосознание, которое воплотится и восстанет из пепла в радикально новой, привлекательной и увлекающий форме.

Form@doct: Разработка инновационных руководств для онлайн-обучения аспирантов во Франции

Мари-Лор Малингр, Александр Серр, Ален Сеинсо, Херв Ле Мен

В то время как информационной грамотности как учебному предмету уделяется все больше внимания в рамках программы подготовки аспирантов, становится необходимым иметь доступ к преимуществам онлайн-обучения данной дисциплине, с учетом удобства такого обучения для аспирантов, условия труда и методы обучения которых довольно специфичны. Данное сообщение преследует сразу четыре цели: показать, как онлайн-портал для аспирантов Form@doct использует свои ресурсы для удовлетворения данной потребности, описать основные вопросы, возникающие в процессе электронного обучения, объяснить конечную структуру, которой может следовать содержание программы обучения, общая архитектура и онлайн-обучение, а также оценить, путем первого анализа, оправдывает ли наш подход использование данного портала.

Поддержка библиотеками Намибии целей национального развития

Эллен Ндеши Намхила, Ритва Нискала

В работе рассматривается стратегия Агентства библиотек и архивов Намибии (NLAS) по преобразованию системы общественных / локальных библиотек. Возможность реформирования системы библиотек возникла с предоставлением образовательному сектору Намибии значительных финансовых средств для стратегического развития его структуры в рамках обеспечения соответствия требованиям к системе образования, определенным стратегией развития Намибии Vision 2030. В 2002 г. Министерство образования обратилось во Всемирный банк за помощью в части разработки стратегий, которые позволят преодолеть трудности и проблемы в сфере образования. Несмотря на то, что содержание сети библиотек относится к компетенции Министерства образования, группа Всемирного банка не включила библиотеки в число сфер, нуждающихся в первоочередном развитии, но порекомендовала не затрагивать библиотечную сеть страны в рамках реформы образования. В работе изложена стратегия, реализуемая NLAS для включения библиотечного сектора в Программу усовершенствования сектора образования и обучения (ETSIP), и для обеспечения финансирования стратегии реформирования библиотечного сектора в масштабах страны, суть которой заключается в том, чтобы превратить общественные / локальные библиотеки из мест, где можно что-либо почитать в качестве отдыха и развлечения, в учреждения, содействующие образованию, научным исследованиям, расширению экономических возможностей, и удовлетворяющие ежедневную потребность в информации.

Академические библиотекари и услуги, связанные с проведением исследований: подготовка и отношение

Кэрол Тенопир, Роберт Д. Сандуски, Сьюзи Оллард, Бен Бирч

Органы, осуществляющие финансирование исследований, признают важность наличия инфраструктуры и оказания услуг по систематизации и хранению данных, полученных в ходе исследований, при этом академические библиотеки вошли в число учреждений, способных стать центрами оказания таких услуг, связанных с проведением исследований (RDS). В число таких услуг входят планирование управления данными, цифровое сопровождение (подбор, хранение, техническое обслуживание и архивирование), а также создание и преобразование метаданных. Мы приводим отчет об эмпирическом исследовании методов RDS, используемых библиотекарями научных библиотек, и определяем исходные данные в отношении степени вовлечения библиотекарей на этом начальном этапе широкого развития указанных услуг. Особое внимание в данной работе уделяется изучению мнений библиотекарей, ставших объектом исследования, относительно степени их готовности к оказанию услуг RDS (подготовка, квалификация и образование), их отношению к значению услуг RDS для их собственных библиотек и учреждений, а также факторов, способствующих либо препятствующих вовлечению библиотекарей в услуги RDS.

Resúmenes

Poverty alleviation through strategic public library services in Nigeria in the 21st century: a model

[Disminución de la pobreza en Nigeria a través de servicios estratégicos de bibliotecas públicas en el siglo XXI: una propuesta de modelo]

Bappah Magaji Abubakar

Este artículo pretende abordar el papel estratégico que desempeñan las bibliotecas públicas en Nigeria como parte de los programas de disminución de la pobreza del siglo XXI. En él se exponen los diferentes programas de disminución de la pobreza dirigidos a combatir esta que los sucesivos Gobiernos Federales de Nigeria han puesto en marcha. A pesar de los planes de reducción de la pobreza aplicados por los sucesivos gobiernos, el desorbitado índice de pobreza del país se mantiene en niveles alarmantes. Además de ello, no se ha tomado conciencia del papel que pueden desempeñar a este respecto las bibliotecas, en concreto las bibliotecas públicas. A la vista de este contexto, el artículo analiza el papel estratégico desempeñado por las bibliotecas públicas a la hora de disminuir el índice de pobreza del país. Como conclusión, se plantean una serie de recomendaciones que pueden servir de ayuda a las bibliotecas públicas nigerianas para desempeñar activamente este merecido papel y/o participar de lleno en los programas de reducción de la pobreza.

Uniting the corpus of our collections through visualization

[Unificación de nuestro corpus de fondos bibliotecarios a través de sistemas de visualización]

Alex Byrne
IFLA Journal 39 (2013) No. 1 pp. 15–19

Este artículo analiza los desafíos relativos a la visualización de fondos en formato físico y digital con el fin de facilitar su uso y consulta, en relación con los nuevos modelos de bibliotecas públicas y académicas, así como los desafíos específicos a los que se enfrentan las bibliotecas con fondos de gran valor patrimonial como la Biblioteca Estatal de Nueva Gales del Sur. Dicha biblioteca es mundialmente conocida por sus extraordinarios fondos sobre Australia y la región circundante. Esta institución, al igual que sus homólogas del resto del mundo, se enfrenta al desafío que supone presentar sus fondos de patrimonio, sus versiones de documentos digitalizadas y sus actuales documentos impresos, almacenados en soporte multimedia o generados digitalmente, en forma de un corpus accesible a investigadores, estudiantes y público en general.

User-centered decision making: a new model for developing academic library services and systems

[Toma de decisiones centrada en el usuario: un nuevo modelo para el desarrollo de servicios y sistemas de bibliotecas académicas]

Lynn Silipigni Connaway, Donna Lanclos, David White, Alison Le Cornu, Erin M. Hood
IFLA Journal 39 (2013) No. 1 pp. 20–29

Este estudio longitudinal realiza un seguimiento de la evolución de sus participantes de EE.UU. y Reino Unido en cuanto a su motivación y forma de acercarse a la tecnología y a la información a lo largo de cuatro fases del proceso educativo. La aplicación de métodos cuantitativos y cualitativos, incluyendo aquellos de carácter etnográfico centrados en el análisis individual de los participantes, aportó un valioso conjunto de datos que permite realizar múltiples análisis. En lugar de exponer aspectos generales sobre el uso de la tecnología y los hábitos de búsqueda de información, este estudio analiza, a lo largo de un amplio período de tiempo, cómo los participantes obtienen dicha información en función del contexto y de sus necesidades concretas, identificando y describiendo posibles cambios en su conducta.

Re-training of librarians for the digital work environment by the Nigerian Library Association

[Formación de reciclaje para bibliotecarios sobre el entorno de trabajo digital impartida por la Asociación Bibliotecaria Nigeriana]

Ezra Shiloba Gbaje
IFLA Journal 39 (2013) No. 1 pp. 30–36

Este artículo aborda la formación de reciclaje para bibliotecarios sobre el entorno de trabajo digital impartida por la Asociación Bibliotecaria Nigeriana (NLA por sus siglas en inglés). Para la recopilación de datos de este estudio se utilizó, además de la observación personal, el análisis documental de los contenidos del disco compacto (CD) de los talleres formativos del Área de Tecnología de la Información de la NLA para el período de 2007 a 2011. Los resultados del análisis revelaron que el Área de Tecnología de la Información de la Asociación Bibliotecaria Nigeriana ha desempeñado un papel fundamental a la hora de impartir formación de reciclaje para bibliotecarios sobre el entorno de trabajo digital, mediante sus talleres anuales de Biblioteca y Tecnología de la Información en la Actualidad. Entre las recomendaciones se incluye la actualización de los temas abordados en los talleres anuales para incrementar su eficacia.

Locating librarianship's identity in its historical roots of professional Philosophien: towards a radical new identity for librarians of today (and tomorrow)

[Determinación de la identidad de la biblioteconomía partiendo de su origen histórico en las disciplinas filosóficas profesionales: hacia una identidad totalmente nueva de los bibliotecarios del presente (y del futuro)]

Sara Wingate Gray
IFLA Journal 39 (2013) No. 1 pp. 37–44

La "identidad del bibliotecario" es un tema controvertido, aparentemente atrapado en un conflicto de valores entre los principios tradicionales de la "ciudadanía" y la evolución que se produjo a finales del siglo XX hacia una democracia de carácter consumista. Los nuevos profesionales pueden llegar a desconfiar a la hora de vincularse a sistemas establecidos dentro de su propia jerarquía profesional, dado que las asociaciones profesionales parecen no haber prestado suficiente atención a la manera en que se ha producido dicha transformación de valores; a pesar de ello, estas siguen siendo las cuestiones clave que deben abordarse: cómo ha tenido lugar la evolución hacia un enfoque de "consumo/gestión de información" y del socio de la biblioteca como "cliente", así como la influencia global en la identidad de la profesión de los nuevos modelos de suministro de fondos bibliotecarios por parte de empresas privadas o instituciones benéficas. ¿Qué significa ser

"Bibliotecario" en el siglo XXI? Este artículo analizará el origen de la filosofía de la Biblioteconomía teniendo en cuenta su evolución en el tiempo, con el fin de determinar cómo se constituyen las identidades profesionales: desde el concepto inicial de "bibliotecario" como guardián de libros/catalogador o "agente economizador" de la biblioteca planteado por Edwards y Dewey, pasando por el "Documentalista" de Otlet y Shera o el bibliotecario "que ayuda" de Ranganathan, hasta llegar a figuras actuales como la propuesta de Lanke del bibliotecario como "facilitador comunitario de la creación de conocimiento". A través del análisis histórico del origen de las diferentes filosofías de la Biblioteconomía y la aportación de pruebas que se desprenden de la trayectoria histórica de esta disciplina, este artículo desarrolla una tesis con respecto al modo en que los profesionales bibliotecarios modernos, que ejercen su labor en áreas y según procedimientos no tradicionales, pueden contribuir a plantear una posible salida a la crisis de identidad más allá del discurso oficial de la Biblioteconomía y la Ciencia de la Información. Se plantea que, investigando las filosofías subyacentes a la biblioteconomía y escuchando a aquellas personas que, aunque no necesariamente dispongan de las competencias tradicionales del ámbito bibliotecario o no trabajen en un contexto tradicional, contribuyen como miembros del gremio al desarrollo de habilidades informativas y a la alfabetización informacional, puede observarse el proceso de construcción de una nueva identidad. Asimismo, se proporcionan ejemplos de participación y actividades de miembros de la profesión y personas externas que ilustran cómo puede moldearse esta nueva identidad para hacer resurgir, como el ave fénix, una forma totalmente nueva y atractiva de relación.

Form@doct: Designing innovative online tutorials for PhD students in Franc

[Form@doct: diseño de guías didácticas en línea innovadoras para alumnos de doctorado en Francia]

Marie-Laure Malingre, Alexandre Serres, Alain Sainsot, Hervé Le Men
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En una época en la que la alfabetización informacional es un tema que va ganando importancia dentro de los programas de doctorado, parece necesario evaluar las ventajas de la formación en línea en este ámbito y su viabilidad para los alumnos de doctorado, teniendo en cuenta sus condiciones de trabajo y métodos de aprendizaje específicos. El objetivo de este artículo

es cuádruple: mostrar cómo Form@doct, un portal en línea para alumnos de doctorado, utiliza sus recursos para responder a las necesidades mencionadas; describir los retos que plantea la formación en línea; explicar las posibles maneras finales de estructurar los contenidos, la arquitectura general y la enseñanza en línea; por último, evaluar, mediante un primer análisis, si el uso que se hace del portal sirve para validar nuestro enfoque.

Libraries supporting national development goals in Namibia

[Contribución de las bibliotecas al logro de los objetivos nacionales de desarrollo en Namibia]

Ellen Ndeshi Namhila, Ritva Niskala
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Este artículo describe la estrategia del Servicio Bibliotecario y de Archivos de Namibia (NLAS por sus siglas en inglés) para transformar la red de bibliotecas públicas/comunitarias. La oportunidad de transformar la red de bibliotecas surgió cuando el Área de Educación de Namibia recibió una importante financiación para desarrollar su marco estratégico de aplicación de los requisitos del sector educativo como parte de "Vision 2030", el plan estratégico de desarrollo de Namibia. En 2002, el Ministerio de Educación del país solicitó al Banco Mundial asesoramiento para desarrollar estrategias orientadas a afrontar los retos relacionados con el rendimiento del sector educativo. Aunque la red de bibliotecas dependía del Ministerio de Educación, el equipo del Banco Mundial no consideró las bibliotecas como un área importante de desarrollo, sino que recomendó que se excluyera la red de bibliotecas de todo el país del ámbito de la reforma del sector educativo. El documento describe la estrategia que el NLAS puso en marcha para lograr que se incluyera el área de bibliotecas dentro del Programa para la Mejora del Sector Educativo y de Formación (ETSIP por sus siglas en inglés) y garantizar la financiación de una estrategia de reestructuración del sector bibliotecario estatal capaz de hacer que las bibliotecas públicas/comunitarias dejasen de ser simplemente centros de lectura recreativa y se convirtieran en instituciones de apoyo a la educación, la investigación, la capacitación económica y las necesidades cotidianas de información.

Academic librarians and research data services: preparation and attitudes

[Los bibliotecarios académicos y los servicios de documentación de investigaciones: preparación y actitudes]

Carol Tenopir, Robert J. Sandusky, Suzie Allard, Ben Birch

Los organismos encargados de financiar la Investigación son conscientes de la importancia de que exista una infraestructura de servicios que permita organizar y almacenar datos de investigaciones. Las bibliotecas de investigación académica se consideran el lugar en el que deben ubicarse dichos Servicios de Documentación de Investigaciones (RDS, por sus siglas en inglés). Los servicios de documentación de investigaciones abarcan diversos aspectos como la planificación de la gestión de datos, la conservación digital (selección, preservación, mantenimiento y archivo) y la creación y conversión de metadatos. En este artículo exponemos los resultados de una investigación empírica sobre las prácticas de los bibliotecarios de los RDS en bibliotecas de investigación académica de EE.UU. y Canadá, estableciendo pautas sobre las que articular la función de los bibliotecarios en esta temprana fase del desarrollo de un servicio generalizado. En concreto, este artículo analiza las opiniones de los bibliotecarios encuestados acerca de su grado de preparación para proporcionar servicios de documentación de investigaciones (experiencia, competencias y formación), sus actitudes en cuanto a la importancia de los RDS dentro de sus bibliotecas e instituciones y los factores que facilitan o dificultan la tarea de los bibliotecarios en los RDS.