

Information Technology Section Newsletter

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Editorial

Quebec City was host to an informational and cultural feast for the participants in the 74th IFLA World Congress. The Information Technology Section (ITS) was well represented, with excellent papers in our section and through joint-sessions with other IFLA sections. Reports on Quebec sessions are available in this newsletter.

In this issue we feature three new articles covering diverse elements of library information technology. The IFLA congress in Durban highlighted how African nations are exploring new digital initiatives. Rose Okiy provides a report on digitisation and archiving projects in Nigeria.

Joan F de Beer and Isabelle Eula from Qatar provide guidelines on effective use of teleconferencing and videoconferencing to

facilitate complex projects with international participants.

RFID is increasingly prevalent in libraries. You will find an Information Technology Section report on RFID and privacy.

The newsletter itself featured as a runner-up for the best newsletter prize at the Quebec congress.

Edmund Balnaves

Our special thanks to the ITS newsletter contributors. Article proposals for the next issue, as well as news and events relevant to a global library information technology audience, are welcome and should be sent to the editor at ejb@prosentient.com.au

From the Chair

Dear Colleagues,



2008 is ending soon and it is time to review the year: this issue of the newsletter highlights major events and their outcomes from WLIC Quebec 2008. This year we extended the broadness of initiatives and actions related to IT-colleagues in the area of librarianship both within and outside the Standing committee for information technology.

Working groups were another important element of our work in the committee: in order to extend our working platform we plan to establish additional working groups. In IFLA terminology these are "Special Interest Groups" - our first was "Libraries and Web 2.0" which sponsored a very successful discussion in Quebec 2009. The next one will be a group about "Library Management Systems and IT development in poverty areas"; here we plan to clarify the needs and afterwards to pursue various

administrative steps to have this group established within IFLA.

Two important steps for IFLA and our section will feature in 2009:

1. We are awaiting the new IFLA website which offers virtual platforms and working areas for distance collaboration - an important topic for our section and especially the standing committee, which isn't able to meet twice a year like other section committees for funding reasons. Often postponed we now hoping for March 2009.

2. We are delighted to announce our first IT section sponsored **Satellite Preconference: "Emerging trends in technology: libraries between Web 2.0, semantic web and search technology"**, which will take place in Florence, 19-20 August 2009. Please refer to the announcement on page 17 of this newsletter and join us at the conference!

Reinhard Altenhöner
R.Altenhoener@d-nb.de

2009 Conference

World Library and Information Congress - 75th IFLA General Conference and Council



**"Libraries create futures:
Building on cultural heritage"**

23-27 August 2009, Milan, Italy

The section

The Information Technology Section (ITS) serves to promote and advance the application of information technologies (IT) to library and information services in all societies, through activities related to standards, education and training, research, and the marketplace.

The Section belongs to the IFLA Division VI – Management and Technology
<http://www.ifla.org/VII/d6/dmt.htm>

For more information about the ITS and our strategic plan see
<http://www.ifla.org/VII/s21/sit.htm>

The Committee

At present, the standing Committee of the ITS has 23 members from 16 different countries. There are ballots for elections every two years, as members complete their terms of four years. See the complete list of SC member at the end of this newsletter.

Current officers are:
Reinhard Altenhöner, Chair,
(r.altenhoener@d-nb.de)

Alenka Kavčič-Čolić, Secretary
(alenka.kavcic@nuk.uni-lj.si)

Edmund Balnaves, Information Co-ordinator (ejb@prosentient.com.au)

The Membership

ITS is the second biggest section in IFLA with over 400 members from 90 countries and all types of libraries.

If you are not a member of **IFLA** and would like to join, please contact **IFLA Headquarters** or consult the IFLA membership information at
<http://www.ifla.org/III/members/>

If you are already a member but want to join the IT Section please review the section "**How to register for IFLA Sections**".

Alternatively, contact the IT Section Information Co-ordinator –
ejb@prosentient.com.au.

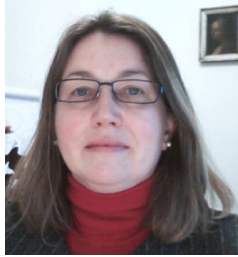
The **Information Technology Section Newsletter** is published twice a year for free distribution. It serves to inform the ITS members of the Section's activities, IFLA updates and events related to IT & libraries. Current editor: Edmund Balnaves (ejb@prosentient.com.au). All contributions are welcome. To receive this *Newsletter* send your email to the ITS Information Co-ordinator.

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The previous issue of the Newsletter was published in July 2008.

QUEBEC 2008

Information Technology Section Session



Report by Alenka Kavčič-Čolić

On Thursday, 14 August, 2008, the IFLA Information Technology Section organized its own session titled Enabling access to the global library – small is beautiful: distributed deployment of library services for small and special libraries. We received several very interesting studies, but unfortunately we had to select only four - those more closely related to the topic of the session. Some of the papers not selected for the Congress have been included in our section newsletter.

Significant implementations in the USA and Canada / BEN HYMAN (Public Library Services Branch, Ministry of Education, Government of British Columbia, Canada, Victoria, BC, Canada, presenting) and JULIE WALKER (Georgia Public Library Service, Atlanta, GA, USA)



The Evergreen software is the integrated shared library cataloguing system used by the consortium of 275 libraries in 14 counties called Georgia Library Public Information Network for Electronic Services (PINES). It was developed following the specific needs of the libraries PINES. Today it can handle nearly 100,000 circulations per day. It can also easily accommodate to small and big libraries. The users of a PINES library have access to the information on library holdings and make free use of all the library and interlibrary loan services in any of the libraries in the consortium.



In 2007 the public libraries in the state of British Columbia, Canada, following the positive experience of the Georgian libraries, decided to implement the Evergreen open-source software used by PINES. They expect to have more than 65 libraries sites live by 2011.

On December 2007, the Georgia Public Library Service got the second Andrew W. Mellon Foundation Award for Technology Collaboration for the development and release of the Evergreen open-source library automation system.

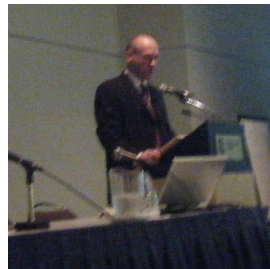
Archon: facilitating global access to collections in small archives / SCOTT W. SCHWARTZ (presenting), CHRISTOPHER PROM, KYLE FOX and PAUL SORENSEN, (University of Illinois, Champaign, Illinois,



**Archon™
The Simple Archival
Information System**

USA)

Archon is an open-source collections management tool developed by the University of Illinois, Champaign in 2006. It is a web based application created for describing archival materials and providing access to their digital content. It uses ISAD(G) and DACS compliant description standards. The data can be reproduced in a form of searchable websites, MARC bibliographic records and EAD finding aids. It also supports multilingual character sets. The access interface offers different search functions, including narrowed search to specific contents and federated search through several collections/libraries. The administrative interface is designed also for non-professional staff as it has explanatory field descriptions in English and Spanish and very soon in



French.

It consists of various modules, the accession manager, collection manager, subject manager, content manager, and access manager. The content manager permits different granularity of holdings description. The Archon subject manager makes it easy to develop and apply creator authorities and controlled subject lists.

The data from the Archon database can be easily exported in different data formats to other database systems running on other servers inside or outside of an institution's archival repository. In the future, they plan to add thumbnails in the rendering result pages, helping in this way the users to easily identify the digital contents they are seeking. The thumbnails images will be linked to higher resolution images and expanded descriptive metadata.

Since it is easy to install and being free of charge, it has been implemented in more than 30 archives and special collections libraries. The latest version Archon 2.1 was released in 14 April 2008. The Archon project teams continue developing new features, including the preservation management component.

QUEBEC 2008 ITS SESSION REPORT



Punching above our weight: a small Scottish Library Service joins the global community / ANTHONY BROWNE (East Renfrewshire Council, Community Services, Scotland, UK) and CHRISTINE ROONEY-BROWNE (Department of Computer and Information Sciences, University of Strathclyde, Glasgow, UK)

East Renfrewshire Library and Information Service 2.0 (ERLIS 2.0) in Scotland, UK is a good example of the integration of the library and web 2.0 services. With very scarce resources and lack of technical expertise, they succeeded in creating a fully integrated Web 2.0 site of their own, using free SNS application. Before choosing the appropriate services they analysed in detail possible consequences regarding privacy issues, library ethics, legal implications, advertising, staff training and library suitability. Today, they provide an integrated and participative library service (including synchronous messaging, streaming media, blogs and wikis, tagging, RSS feeds, mashups etc.).

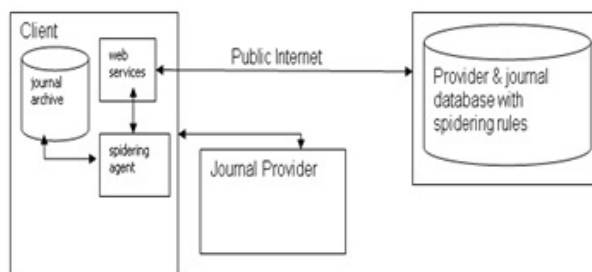
In October 2007 the number of 'hits' for SNS sites (Facebook and MySpace) exceeded the number of hits for web based e-mail websites, such as Hotmail and Google Mail.

Their contribution was nominated by the members of the IFLA Information Technology Section Standing Committee for inclusion in the IFLA Journal.

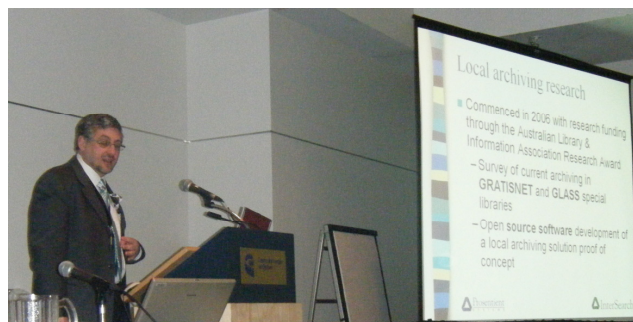
Digital archiving of e-journals for Special libraries / EDMUND BALNAVES (presenter) and MARK CHEHADE (Prosentient Systems, Sydney, Australia)

In 2007 Prosentient Systems undertook a survey of the 263 member libraries of the GratisNet Inter-Library loan network on their current practice in electronic subscriptions and e-journal archiving. Their findings showed that only 7 of these libraries had some work in e-journal archiving. The main reason for this was that most of the special libraries were not well resourced to undertake their own e-journal archiving initiatives. As consequence, the access to e-journal archives depended on the e-journal subscriptions and supplier provision of access. Neither the publisher nor the subscription agent takes the responsibility of indefinite continuity of access to e-journals.

To address this problem, Prosentient Systems developed InterStore, an archiving application based on open source "Smart Client" that can be easily deployed in special libraries with minimal information technology support.



InterStore contains a web crawler that can dynamically harvest all metadata and documents in the electronic journals databases to which the libraries are subscribed. The documents are stored in the local file system as well as in WARC format for archival management. InterStore is developed as a web application and it can be used online and offline. It can provide portal access to the archived journal.



INFO TECH SPOTLIGHT

NIGERIA

DIGITIZING AND ARCHIVING INFORMATION RESOURCES IN LIBRARIES: REACTIONS TO GLOBAL INITIATIVES FROM NIGERIA

Report by:

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The application of Information and Communication Technology (ICT) in Libraries has broadened the scope of librarianship and placed new roles on libraries and librarians all around the world. Libraries of all types are now hard pressed to respond to this global revolution by the provision of virtual library services to enable easy access to electronic resources anywhere in the world. This requires that individual libraries become active participants in this global information drive by making information resources local to them available on the net for global consumption. Herein lies one of the crucial functions of digitization and archiving of information resources in libraries as these processes are required to put local information resources on the Internet.

Nigeria is the most populous black nation in the world with approximately 140 million people by 2006 national Census figures. Nigeria celebrated 48 years of independence from colonial rule on the 27th of October, 2008.

There are very many tribes in Nigeria with over 250 languages. The educational system has been relatively ineffective with constant yearly disruption of the academic calendar particularly in the Universities due to workers strikes over poor pay and poor funding for the universities. There are 93 universities in Nigeria at the moment and they are under different proprietorship. The Federal Government owns 27, state governments own 30, while private individuals or organizations own 36.

At present, the state of ICT in Nigeria is poor especially when compared with some other African countries such as Egypt and South Africa (Omekwu, 2008).

The present ICT usage of 5.8% by Nigeria among West Africa countries was made possible by Government's recent liberalization policy in which over 50 Internet service providers were licensed to market their services starting from 1998 (Omekwu, 2008). Consequently, many Nigerians are now internet savvy, mostly due to their personal interest and efforts in using public cyber-cafes to gain access to the internet to seek information on a wide range of subjects and to sharpen their ICT skills. Many students and scholars are changing from the traditional methods of sourcing for information in Libraries to surfing the Internet for current information.

Many librarians in Nigeria are therefore taking up the challenge of computerizing their libraries and some have taken some steps to source the requisite funds to digitize and archive their library resources for easier web-based access. Academic Libraries are in the forefront of

"Nigerians are now Internet Savvy, mostly due to their personal interest and efforts in using public Cyber-cafes to gain access to the Internet to seek information on a wide range of subjects and to sharpen their ICT skills."

this initiative. However, only 19 universities have Websites/Web pages, while only 10 of them have Websites/Web pages dedicated to their libraries as at 2007 (Gbaje, 2007)

The above poor scenario of ICT application, digitization and archiving in Nigerian Libraries necessitated some interventionist measures to improve upon them. In recent times, there have been series of workshops in various Universities and organizations to educate and sharpen the ICT skills of librarians from various higher institutions. Some exam-

ples include - the National Interactive Seminar on Digitization of Library materials: Processes and tools, organized by the National Library of Nigeria from 16th - 20th July, 2007 at the University of Jos Library; the Intensive Training Workshop on: "Practical Use of the Internet for Library and Information Services" by the Nigeria Library Association in collaboration with Libopas Nigeria Ventures (a library operations services consultant) from 31st March to 3rd April, 2008, at George Manny Centre, Ilorin and recently, the Workshop on "The Basics of Web Publishing in Libraries and Information Centers", organized by the Nigerian Library Association from 21st - 26th of September, 2008 at the Kazim Ibrahim Library, Ahmadu Bello University, Zaria, Nigeria.

The National Universities Commission (NUC) which is the Government regulatory body overseeing all the universities in Nigerian started a project in 1995 called Nunet - the Nigeria Universities Network. This project was supposed to effect connectivity among all the universities in Nigeria electronically for the purpose of resource sharing. The project failed because most of the Universities in Nigeria at that time did not have the necessary facilities, funds and ICT skilled manpower to participate in the project. In 2005, the Nigeria Government through the NUC started another internet project called the NUC Virtual Library Project. The aim of this project is to revitalize the computerization of University Libraries,

encourage their connectivity to the Internet to facilitate teaching, and research through improved access to electronic information resources. The NUC has organized some workshops for librarians with the aim of building their ICT capabilities so that they can be better equipped to actively participate in the project.

Another project of note is the digitization of Theses and Dissertations in Nigerian Universities which started with the University of Jos and the Obafemi Awolowo University (OAU), Ile-Ife. This project is an initiative of the Association of African Universities (AAU) and sponsored by the Carnegie Corporation of New York and AAU. The AAU is an international Non-governmental organization which was set up in 1967 by Universities in Africa with a number of objectives which include, "collecting, classifying and disseminating

INFO TECH SPOTLIGHT

NIGERIA

information on higher education and research, particularly in Africa” The aim of this project is to have a database of African Theses and Dissertations (DATAD) and preserve them in digital form so as to facilitate electronic access to them and hence add African content to the Internet for world wide access. These two universities were selected for this project take-off because of the relatively high level of computer facilities and availability of ICT skilled manpower. Staff from these libraries have continued to undergo competency training both in Ghana - the regional headquarters of the AAU and in Nigeria (Ochai, 2007). Librarians trained through these workshops have trained several librarians from other universities in Nigeria.

DATAD project office staff in Ghana have also been to the University of Jos for on the site training. All these have gone a long way to strengthen the knowledge of many librarians so far in digitizing and archiving of information resources in some academic libraries such as University of Port-Harcourt library and the University of Ibadan library.

The Hezekiah Oluwasanmi Library (HOL) of the Obafemi Awolowo University, Ile-Ife has two ongoing digitization projects. Apart from the DATAD project, of the AAU, the HOL of the OAU started its newspaper digitization project in 2003 with a grant from the Carnegie Corporation of New York. The grant was meant for the conversion of some of its manual catalogue into digital format and the digitization of its newspaper collection (Jagboro, 2007). The OAU is one of the oldest universities in Nigeria. It was established in 1962. The newspaper collection of the HOL therefore dates back to 1962. The digitization project was informed by the high demand and heavy usage of these newspapers by both staff and students for research purpose. Funding was therefore solicited for this purpose for the necessary equipment to be acquired and for staff to be trained. Although the initial focus was for newspapers, a number of important textbooks are already being digitized in the HOL. Furthermore, the HOL at the moment subscribes to over 15 databases which include EBSCO, JSTOR, HINARI, OUP Journals - PERI, AGORA and DATAD online (Afolabi, 2007).

Many University libraries in Nigeria

are now very conscious of the need to computerize their operations and gain Internet connectivity for access to electronic resources for their users. The constant demand from staff and students for electronic information resources from academic libraries is compelling many of them to go online. In view of this, many libraries are beginning to utilize funds being made available to them from the Education Trust Fund (ETF), (a Federal Government Agency created to help plough back some government funds into educational institutions in Nigeria) to provide ICT facilities and services in their libraries.



Source: <http://www.aau.org/datad/>

Furthermore, faced with the hard realities of poor funding and the need to access the latest information from the Internet, the Committee of University Librarians of Nigerian Universities (CULNU) created a consortium, through which it negotiated for reduced country license for EBSCO host. The negotiation reduced the institutional cost for access to their e-resources from \$63,000 to \$5,859. This is a database that contains almost 8,000 academic journals in many fields. The poor usage statistics of several e-resources including Ebscohost databases in Nigerian Universities prompted NULIB's request for capacity - building workshops from EIFL.net (Bozimo, 2007). Consequently, two separate capacity-building, Train-the-Trainer's workshops were held in the University of Jos, from 14th - 17th of October, 2007 and at the Obafemi Awolowo University, Ile-Ife from 17th - 20th October, 2007. The focus during the workshops included

knowledge of the ELFL.net negotiated e-resources, how to use the free e-resources on the EIFL.net home page, how to register for licenses for (and use of) databases such as: BIO one, Oxford Online, EBSCO, HINARI, OARE, AGORA, JSTOR, ALUKA. The country coordinator for ELFL.net is Professor Doris Bozimo - a professor of Library Science. All necessary information to facilitate easy access by participating Libraries to the EBSCO host database have been circulated to all the libraries concerned.

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QUEBEC IT/P&C REPORT

REPORT ON INFORMATION TECHNOLOGY SESSIONS AT IFLA CONFERENCE, QUEBEC, CANADA AUGUST 2008

Report by Alenka Kavčič-Čolić

The IFLA sections of Preservation and Conservation (PAC), Information Technology and the IFLA-CDNL Alliance for Bibliographic Standards (ICABS) and Law Libraries met at the joint session in Quebec, Canada, on Monday, 11 August 2008. The main topic of the session was digital preservation. Ten very interesting contributions by experts working in the field of digital preservation were presented to the participants.

The first part was dealt with physical carriers of digital information. The main reason for lost of data can be media degradation or lack of representation of information. Those attending the session had the occasion to be acquainted with the methodologies for risk assessment of different physical carriers (magnetic and optical) and approaches for their preservation. These methodologies were developed by the New York University (USA), British Library (UK) and the National Library of Australia. At the University of Glasgow, the ingest strategies of information on digital carriers in their repository system were analysed. An exhaustive report will deal with this issue.

The second part of the session dealt with preservation infrastructures. Participants had the occasion to see different approaches to digital preservation in a form of a national network, like the project KOPAL in Germany or concentrated on technical, operational or strategic levels, such as the California Digital Library, National Library of France, Library and Archives of Canada and the National Library of New Zealand. A model of cooperation in digital preservation between libraries and communities was presented. This report presents brief descriptions of the contributions to this interesting joint session.

Preservation/ITS Session—Part 1

Interactive multimedia on CD-ROM: experiments with risk assessment / Mona Jimenez (New York University, New York, USA)

Mona Jimenez presented the experiences of the joint research team of Avery Fisher Center for Music and Media (AFC) in the Elmer Holmes Bobst Library at the New York University (NYU) as part of the Moving Image Archiving and Preservation Program (MIAP). They have examined multimedia titles on CD-ROMs and floppy disks, running on MS Windows or Macintosh platform, dated in the late 1980s and the early 1990s.

They found that different platform system types and versions could influence the delivery of the digital objects. Specific problems plague multimedia digital objects. Most multimedia objects are produced using specific authoring software and must be delivered with a player specific to the production software. The presenters indicated that any preservation research should be based on the information representation from the native technological environment of different digital objects. In this regard they tried to reconstruct old Macintosh hardware environment. In the future they are planning to do the same with the PC.

They noticed that in the past the multimedia assessment of CD-ROMs had focused on the format, age, availability for replacement but not on the physical condition. Considering this, some MIAP students created in 2006 a CD-ROM inspection sheet which was used as a guide for their assessment of individual titles. They had problems with the lack of preservation metadata (data on production date, technical details). In some cases the printed material originally attached to the digital objects can be helpful in understanding prerequisites for preserving the object. The task was more complex coming to the works that have external computer dependencies or are used to control external devices. In order to solve these problems in 2008, MIAP students produced a timeline of computer characteristics which was intended to be an aid for determining technical requirements for replication of the disk's native environment.

One of the solutions for preservation of this multimedia material would be to sort it by platform dependence, production and/or player applications. After that categoriza-

tion, a workflow could be developed for the implementation of the preservation strategy.

As a research result they have defined several preservation strategies, like progressive migration of software, emulation or re-construction, oral histories collections to document CD-ROM productions, open source of interpreters' development, research of commercial solutions, etc. Mona Jimenez emphasized that a selection of materials to be long-term preserved should be done. It is also very important to define the preservation responsibilities of multimedia works in libraries and archival institutions.

Risk carriers – The risks faced by hand held media / Rory McLeod (British Library, London, UK)

Rory McLeod presented the work done by the British Library's Digital Preservation Team (DPT), concerning digital carrier preservation. They have introduced the term of "risk carrier", on the analogy of business risk management. The DPT decided to make a risk assessment of the physical carriers. Consequently, the British Library curatorial management and the collection management began to interact. The risk assessment has opened new information about software and hardware dependencies, relevant to a reader, the library and collection management staff. They found out that major threats of data loss came from media degradation (even up to 3%).

The DPT conducted the risk assessment by partly basing its methodology on the AS/NZS 4360:2004 standard. First, they tried to identify the digital assets in their holdings. Then they identified the environmental risks (physical and digital). As a result, they identified 23 risks and sorted them into 8 categories that directly or indirectly contributed to the high risk faced by hand held carriers. The direct categories were: media degradation, media obsolescence, a file format obsolescence, hardware obsolescence, operating system and file system obsolescence, and software obsolescence. Indirect categories: poor policy, such as cataloguing, metadata and other poor factors (training and handling). They found that the physical carrier was most at risk.

After risk identification and assessment they ranked the endangered archives in the library and set up a priority list for preservation. This list is annually updated by the DPT. In the future, they plan to assess the results of risk reduction activities.

QUEBEC IT P&C REPORT

Media Matters: developing processes for preserving digital objects on physical carriers at the National Library of Australia / Douglas Elford, Nicholas del Pozo, Snezana Mihajlovic, David Pearson, Gerard Clifton, and Colin Webb (National Library of Australia, Canberra, Australia) – Presented by Colin Webb

The detailed risk assessment of the digital collections in the National Library of Australia (NLA) undertaken in 2003 showed that the deterioration of physical carriers was the most pressing risk of loss of data in the Library. The reason for the loss of data may not be only the physical deterioration of the carriers, but also due to the difficulty of recreating the original technical environment (hardware and software) necessary to access to digital data on a carrier. It was also found that the existing cataloguing and documentation systems have not provided metadata that could have maintained useful linkages between objects and gave information on the technical environment. The existing workflows at NLA were unable to address all these risks. Copyrighted materials have additional issues in relation to copying from one media to another where the NLA has no permission to be copied /for copying. To solve these problems, NLA has undertaken the Digital Preservation Workflow Project which aims to design a workflow system for semi-automatic transferring data from physical carriers (optical and magnetic disks) to preservation of digital mass storage.

The architecture of the Digital Preservation Workflow System (DPWS) is based on Java web services and uses several open-source tools (DROID, JHOVE, New Zealand's Metadata Extractor, ClamAV). It interacts with the existing NLA's cataloguing workflow, adding a physical media part to the digital holdings record. DPWS enables different processes as media imaging, file identification and metadata extraction. In order to extend the input capacity and reliability of the existing Standard Operating Environment computers used by staff, the system uses portable, multi-drive 'mini-jukeboxes'.

The initial version of the DPWS was planned to be available to the Library staff in the second half of 2008. With the development of the DPWS, it was necessary to create related services, tools and methodologies.

Ingest strategies of digital libraries: the challenges of handling portable objects / Adam Rusbridge and Seamus Ross (University of Glasgow, Glasgow, Scotland) – Presented by Seamus Ross

The paper presents the Package Object Ingest Project (POIP) undertaken by the research team of the Humanities Advanced Technology and Information Institute of the University of Glasgow (HATII). The aim of the project was to analyse the ingest strategies of information on digital carriers into their digital repository system. Their research focused on the Ingest module and the Submission Information Package in the reference model for an OAIS and its pre- and post-processes.

The research was done on a sample of 45 randomly selected physical carriers, which were sorted in five categories:

Published static content CD-Roms, Multimedia CD-Roms, Unpublished CD-Roms, Published 3.5" Floppy Disks and Unpublished 5.25" and 3.5" Floppy Disks. They analysed the ingest stages and procedures of twenty selected physical carriers from the sample. This included selection, registration, quarantine and virus checking, ingest preparation, verification, description and cataloguing, and archiving.

The test showed five different scenarios which summarised many challenges faced. In their research they also encountered various types of object structures that they categorized regarding their complexity, file fragmentation and composition, and intellectual relationship between the objects' contents.

They found the manual ingest to be very expensive and subject to errors. The format identification was very time consuming. The version identification was very difficult, too. Due to the lack of semantic and descriptive information, the context of the information was often lost. Binary files presented special problem during the ingest function as their properties

cannot be easily identified and classified. They can neither be easily converted into more useful file formats. Tools for automatic extraction of preservation information – especially technical information – are needed. The repository infrastructures should be interrelated with external format and software registries. Collaborative efforts should contribute to acquire better results. Further research on the practical use of technical metadata is needed.



Preservation/ITS Session—Part 2

Implementing a cooperative long-term preservation infrastructure solution for heterogeneous institutions – report from ongoing activities in Germany / REINHART ALTENHONER (Deutsche Nationalbibliothek, Frankfurt am Main, Deutschland)

The German project KOPAL (Co-operative Development of a Long-Term Digital Information Archive) was an example of cooperation in digital preservation. The project's objective was to develop a centralized technological and organizational solution to ensure the long-term availability of electronic publications. KOPAL has been very successful in the development of the digital archival network, consisting of 34 German legal deposit institutions. The most important result of the project was the implementation of a commercial system DIAS (by IBM) for archiving and long-term preservation of digital materials, which was extended for remote access, and the implementation of digital preservation planning strategies in the German archival institutions. Since June 2006, The National Library of Germany and the State University Library of Göttingen have ingested parts of their digital collection into the system.

After the end of the project in 2007, the operative phase of the project started. The project's partners – the libraries, IBM and the data centre GWDG – Gesellschaft für wissenschaftliche Datenverarbeitung – decided to continue the cooperation and to expand the consortium to new libraries and heritage institutions. The integration to the operational service requires that all the members of the consortium adopt interna-

tional standards for long-term archiving and metadata. Every institution member receives an account, which permits the usage of the KOPAL platform and makes it responsible for the content kept on it. The system is also open to institutions that do not have the possibility of providing staff and know-how for long-term preservation, but they can outsource these competencies to KOPAL curation institutions.

The advantages of KOPAL network are resource sharing, shared licensing costs and optimised use of distributed knowledge. The partners offer a package of services such as consulting & support, detailed preservation planning, hardware extension, licenses, adoption or customisation of software components, ingest and operational service.

Future developments are concentrated in the creation of a flexible long-term preservation infrastructure adjusted to the needs of the heterogeneous, especially smaller members of the consortium and their service providers, and the implementation of reusable process model together with a handbook on long-term preservation in smaller cultural heritage organizations.

Infrastructure models used by California Digital Library's Preservation Projects /

MARGARET LOW (California Digital Library, Oakland, USA)

The California Digital Library (CDL) manages and operates two repositories, the Digital Preservation Repository (DPR) and the Web Archiving Repository (WAR). Both were built by using the CDL Common Framework (DF) and following the reference model for an OAIS. The services are separated from the storage. Because of this, each repository has the option of being built with a distributed architecture.

The DPR follows a basic CF model architecture. Under the Library Services and Technology Act (LSTA) federal grant, it provides the access to the University of California ten Campuses and public libraries, historical societies and state colleges. Its core services include authentication and administrative functions with access and ingest of the digital objects. There is a limited web access to the objects.

The WAR is a more complex CF model architecture. It uses the core CF services and incorporates services developed by the Internet Archive and the Nordic National Libraries under the consortium IIPC (International Internet Preservation Consortium). There are two instances of this model, one for testing and the other a pilot one, which will be operational in 2008.

A model of digital preservation infrastructures that connects individuals to libraries / ANDREA JAPZON (Drexel University, Philadelphia, USA)

The author of the paper addresses the importance of the preservation of digital information, produced by individuals and suggests a possibility of collaboration with the public libraries and other local memory organizations, which are more experienced in this field and have the necessary technical infrastructure. In return, the community members can contribute to the community collections their knowledge of local history, customs and events and their interest in supporting community organizations. An exploratory survey on digital professional collections confirmed this presumption.

Digital preservation at the National Library of France: a technical and organisational overview / EMMANUELLE BERMES, ISABELLE DUSSERT CARBONE, THOMAS LEDOUX and CHRISTIAN LUPOVICI (Bibliothèque nationale de France, Paris, France)

Christian Lupovici presented the interesting experience of the National Library of France (BnF) in developing its trusted digital repository system. The development of their Distributed Archiving and Preservation System (Système de Préservation et d'Archive Réparti - SPAR) leans on the rich digital preservation tradition, in which the experts of BnF have been important actors from the very beginning.

The system is built by using reusable components assembled with an Open Source framework - FedoraCommons, and relies on the OAIS reference model. Very soon it will be able to collect, store, preserve and disseminate a large amount of digitised and digitally born library materials, acquired manually from the publishers, or automatically by harvesting the web. In their preservation activities they follow the existing authoritative standards like METS and OAI-PMH, and make use of PREMIS preservation metadata. In the digital repository development they address the technical, operational and organizational levels of implementation.

Library and Archives Canada: towards a trusted digital repository /

PAM ARMSTRONG (Library and Archives Canada, Ottawa, Canada)

The Library and Archives Canada (LAC) is also investing efforts into the development of a trusted digital repository system based on the reference model for an OAIS. Their system has been built upon commercial, open source and custom built software. So far, they have developed the Virtual loading Dock which is the gateway to the repository system. They have formed a Digital Information Steering Committee that decides on and monitors the work of all digital initiatives in the institution.

At present, LAC is cooperating with the Government of Canada. They have developed a record transfer tool through which LAC receives archival records from the Government of Canada Records, Document and Information Management System (RDIMS). There is also cooperation with Canadian digital publishers from whom LAC has been receiving records over the last 10 years.

LAC has been working on the development of the Canadian Digital Information Strategy since 2005. There were many national initiatives and projects contributing to the goals of this national strategy. Particularly important is the Canada Project between LAC, Bibliothèque et archives nationales du Québec, Canadiana.org, University of Waterloo and the Canadian Association of Research Libraries. They are trying to attract thousands of digital repositories across Canada to pool their contents in order to create a showcase of Canadian digital heritage. They also plan to develop a national network of trusted digital repositories.

From theory to practice: digital preservation at the National Library of New Zealand / STEVE KNIGHT (National Library of New Zealand, Wellington, New Zealand)

The National Library of New Zealand (NLNZ) /can/ represents another good model for a holistic approach to digital preservation. New Zealand's Legal Deposit Law includes electronic publications on all carriers. In this context, they have defined a Digital Content Strategy which provides a mechanism for understanding the different dimensions of digital content and its use and applicability in the digital age. The National Library's National Digital Heritage Archive (NDHA) Programme, which is in line with their New Generation National Library Strategy, will ensure the technological and organisational infrastructure required to support digital preservation. To integrate NDHA system and other software applications in the NLNZ into the digital preservation management processes and infrastructure, they are undertaking an organizational change. They plan the migration of current digital content to a preservation environment at the end of 2008, for which a lot of work has been invested in the preparations. They also pay attention to the evaluation of the implementation of the digital preservation program. So far, they have defined approximately 60 key performance measures covering key performance indicators, reporting, audit and internal ingest for the NDHA Programme.

Libraries & Web2.0

SIG Libraries and Web 2.0 – panel discussion on “Free allocation of bibliographic data through national libraries” at WLIC Quebec 2008

Report by Reinhard Altenhöner

The discussion meeting “Free allocation of bibliographic data through national libraries” – organised by the discussion group “SIG Libraries and Web 2.0” sponsored by the IT-Section was a special highlight at WLIC 2008.

Moderated by Patrick Danowski, panel representatives from OCLC (Karen Calhoun), Stephan Abram from SirsiDynix and Patrick Peifer from Creative Commons as well as Sally McCallum from the Library of Congress had a lively discussion with the audience about this topic in all its aspects.

The entry into the discussion was a statement brought in via screencast by the Open Library. Due to the theme “free the data”, the Library demanded the opening / release of all bibliographic data for the project and beyond. In contrast, the colleague of OCLC campaigned for a more differentiated view to this topic as a variety of different basic conditions have to be considered – e.g. the simple fact that the production of metadata, at least currently, is a personnel-intensive and thereby an expensive process.

These issues were rounded off by an overview of the diversified spectrum of experiences and varying legal constructions which can be offered through the Creative Commons, an approach which improves the legal clarity for all parties.

The model of the American Library of Congress was presented. This model envisages the recovery of handling-cost only. This model was convincing due to its transparent structure.

Stefan Abram shifted the discussion towards the perspective of the users: data has to be released in order to enable future users free use and allow new ways for integration of data into their individual work context. The main problem here is the labelling of data and its bounds within conventional data structures. The following discussion showed that in this sense, the allocation of data in a form which allows its subsequent use also in non-librarian systems is of utmost importance.

Further discussion points were how important the creation of metadata will be in the future and therewith the question how libraries can distinguish themselves with their offers in a divided map of knowledge in the Web. Steps towards this aim could be the short term opening and the allocation of APIs by producers of library

systems.

By means of this, there can be a well-defined access to the data stocks of the libraries. This strategy is used by SirsiDynix in order to allow the addition of web services. OCLC is pursuing similar objectives; there were demands from following users that there is basically a refer back to the collections of libraries or direct link respectively.

Finally, the special importance of standards was identified together with a description of the potential of future (librarian) systems which meet the demands of transparency and structuredness when illustrating data as well as the orientation towards superior abstraction models, e.g. the corresponding model of the Dublin Core Metadata initiative.

NEWS

Réseau francophone national digital library (RFBNN)

Réseau Francophone National Digital Library (RFBNN) has developed a prototype internet portal (www.rfbnn.org) which is planned to become the “Great Francophone digital library.”

The network has a dual mission of both long-term and wide dissemination of the documentary heritage of *la Francophonie*. The design and implementation of the portal have been entrusted to Library and Archives of Quebec.

The Francophone community has always placed priority on strengthening its presence on the Internet through the creation and provision of digital content in French. In February 2006, the national libraries of Belgium, Canada, France, Luxembourg, Quebec and Switzerland have decided to establish a network of francophone national digital library. The RFBNN was joined by the Library of Alexandria in spring 2006, followed by several large Francophone institutions during the year 2008.

Five principles guide the actions of participating institutions:

- Non-exclusivity in the search engine mode of access to digital collections;
- guarantee of free access to public documents free of rights;
- retention in the public domain digital files and ensuring its long-term access;

- multilingual access to collections;
- certification by the national libraries of the completeness and authenticity of the documents online.

This unique preservation and development of a heritage often inaccessible, sometimes threatened with extinction, is developed with the active assistance of the International Organization of la Francophonie, which supports the training component in conjunction with the offering members of RFBNN introduction sessions in digitization.

The site www.rfbnn.org, gives access to newspapers, magazines, books, maps and plans as well as archives digitized collections from a dozen institutions of *documentary francophone*. Collaborators in the portal are expected to continually enriched through the introduction of new documents sourced from a growing number of participating libraries

More information: www.francophonie.org

Open Source LMS in Library Technology Reports

The Nov/Dec issue of Library Technology Reports contains a special issue on Open Source Integrated Library Systems. The issue contains an excellent introduction to open source library management systems and trends in this area for service provision.

LIBRARIAN Library Management Software

LIBRARIAN is a state-of-the-art software for Total Library Management to suit all types and sizes of Libraries. Developed & Designed by CR2 in India and Alex centre for Multimedia & Libraries (ACML) in Egypt.

The software has the following modules:

Acquisition, Cataloguing, Circulation, Serial Control Articles, Indexing Administration, OPAC Web-OPAC Reports, Serial control, inventory control.

The system supports internationally recognised standards such as MARC21, Z39.50, MARCXML etc.. Multilingual (Unicode). Unicode compliance to accommodate the multilingual needs of libraries / users.

More information: www.cr2.com

INFO TECH SPOTLIGHT

Conferencing

Joan F de Beer, co-authored by Isabelle Eula (Associate Directors for Collections and for Administration and Planning, Qatar Foundation Central Library)

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Information technology and present-day communication technology make it possible to work in a global world, across distances and with different partners and stakeholders without necessarily being in the same physical space. Documents can be sent electronically, data can be exchanged without hard copy being used, discussions can be held around the clock between participants who have never met and meetings can be arranged and attended virtually by people who are physically in various different locations very far apart from each other.

Working in the virtual world can save time, money and traveling and can lead to greater efficiency and higher productivity. It has become easy to share documents by e-mail and to arrange meetings with colleagues thousands of miles apart through video and teleconferencing.

However, working in the virtual and global world requires good management and planning and requires efficient use of technology to ensure productivity and to eliminate new barriers potentially being created by the self same technology utilized to simplify things.

The Qatar Foundation Central Library at Education City in Doha is currently being established. Once open, the Central Library will serve students, faculty, staff and researchers of Education City, as well as the nation of Qatar and regional communities. Set to become Qatar's premier information resource, the Central Library will offer comprehensive collections of print and digital materials and cutting edge information services to support the academic community, scholars and the general public. The Central Library is nearing the end of the design stage of the new building, with anticipated opening of the facility in 2011.

Planning for the new building requires many meetings and numerous discussions with architects, consultants, vendors and colleagues in other parts of the world and large amounts of information need to be exchanged to assist in decision making. In staffing the new library,

many of the prospective future employees are situated in countries and cities across the world. The consultants and prospective employees work in different time zones, on different continents and represent various cultures. The work place has become truly global and virtual.

Managing in this new office still requires many of the old skills such as good communication and leadership and depends on good team work. The chairmanship of a meeting often has a major impact on the success of the meeting and on achieving the objectives of the meeting. This is true of face-to-face meetings, but is especially true of video and teleconference meetings. These meetings open up some new pitfalls. Working in the virtual office, in a multi-cultural setting like the one at Education City and making use of extensive information and communication technology require an awareness of the possibilities offered by these technologies but also need alertness to the specific challenges technology creates.

Education City is the work place for people of many cultures and many nationalities, with diverse work experience and many home languages. Although English is used mostly as the common language for business communication and interaction, it is very often the second language of many of the employees at Qatar Foundation, resulting in various accents, pronunciation and vocabulary.

The role of the chairperson

One of the most important aspects is the role of the chairperson at meetings. The chairperson should act like a courteous host to ensure that in whichever environment the meeting is held, everyone is able to participate. This could mean, in contact or face-to-face meetings that language barriers are overcome and handled sensitively, that members are allowed to participate and to make a contribution. Even more and better planning on the part of the chairperson and attentiveness of the participants are required for virtual meetings, whether by video or telephone conference. Identifying and introduction of all the participants in the teleconference are crucial for the success of the discussions.

It may be necessary for the speakers in a teleconference to announce themselves whenever they speak to make it easier for listeners on the other side to

know who is speaking and for the keeper of the minutes. In the case of teleconferencing, the chairperson and all the participants should remember that there is no visual contact and speakers cannot depend on the visual image to assist communication and to add to the understanding. The facial expressions, gestures and body language, which all form part of the communication and understanding, are not present and therefore any interpretation will be aural only. Discussions are difficult to follow when speakers interrupt each other during face-to-face meetings. It becomes more so during teleconferences when the speakers are not visible. It makes these meetings extremely difficult and the chairman should ensure that interruptions are limited and controlled. Good chairmanship, ensuring a smooth flow of the discussions, interpreting when necessary and allowing for questions and clarification when necessary will help towards making the teleconference a workable alternative to contact meetings.

In videoconferencing, the chairman needs to ensure that participants on both sides can clearly see the participants on the other side, that the communications connection is good and that the image and sound on both sides are clear. Some facilities have roving cameras, which focus on the speaker while other facilities show all the participants. The venue should be soundproof from background noise.

Background noise is disturbing in any meeting but during videoconferencing it is most disturbing to hear noise without knowing its source. The chairperson should check that both sides of the video conference have the same good reception to enable good participation. As with teleconference meetings, the interruption of speakers causes difficulties which should be handled by the chairperson.

A shared knowledge base

The world of work is often very multidisciplinary, with people from various backgrounds working on the same project. Different disciplines are involved in the planning of a new library building, ranging from the end user, the librarian, to architects, interior designers, engineers, quantity surveyors, suppliers, project officers and construction contractors. It is essential that they all share the knowledge base required for the specific project. Each discipline has its own technical vocabulary



and professional and technical language have to be used to realize a complex project which often requires the involvement of interdisciplinary teams. In a multicultural, multi-disciplinary work environment particular care needs to be taken to ensure that participants all understand the matter at hand and can participate fully in meetings.

Language, pronunciation and accent

In many multicultural working environments where one language is used as the main communication medium, even the most common language may be the second language of many of the people working together. There may be great variation in language levels, understanding of the language, the use of idiomatic expressions, pronunciation, accents as well as local and cultural differences. In some cultures being soft-spoken is seen as a virtue, while during teleconference meetings and videoconferences, this could become a barrier if a voice does not carry well. Abbreviations which are common usage in one part of the world may be completely foreign to other participants. Different terminology, even in the same fields, is often used in various parts of the world and the good chairperson will ensure that these are understood.

Electronic document exchange

The Internet and word processing programs and facilities have made it very easy to exchange documents electronically and to update them. Documents can be updated continuously and exchanged at great speed. Most participants at meetings still print out paper copies of documents to use for discussion. With documents printed on different printers the page numbers often do not match and chairpersons need to be able to refer to documents and agenda points in such a manner that all the participants can find the correct discussion points. With versions of documents being updated all the time, it is important to establish that all the participants are working on the same document version. The tracking and dating of documents become very important in the electronic office. The chairpersons and meeting secretaries should contribute to better and more successful meetings with thorough document management.

Videoconferencing

The use of videoconference facilities makes good and productive meetings possible even if the participants are thousands of kilometers or continents apart. However, poor preparation and use of the technology can lead to very disruptive meeting with poor end results. The chairperson needs to ensure that good participation is made possible. Good participation will depend on factors such as how well the camera focuses on speakers and follows them and how many participants are involved since too large a number of participants is difficult to accommodate in some systems. The quality of the meeting can be enhanced considerably if the camera focuses on the speakers. Speakers should keep in mind to face the camera directly, to speak into it and to keep gestures and hand movements, which would be acceptable in face-to-face conversations, to a meaningful level in front of the camera. Even with good telecommunication connections and use of state-of-the art technology, background noise caused by separate discussions or conversations from the meeting, movement in the room, rustling of papers, the sound of crockery and water being poured close to the camera or the microphone, are much more disturbing on video-conference than in face-to-face meetings.. Videoconferencing makes disturbing mannerisms and habits, gestures and hand movements appear larger than life and more disturbing than in contact meetings.

Teleconferencing

Teleconference meetings between various participants in different physical locations remains one of the easiest and quickest ways to have interested parties meet. It is not expensive, it is time-saving, uses easily accessible technology even for developing countries and does not need elaborate or complicated equipment or venues to arrange. Participants have to keep in mind that they cannot see the speaker and cannot benefit from the non-verbal cues which are so much part of normal communication. If speakers' voices are not easily identified, the chairperson must ensure that all participants know who the speakers are at any given time. Lines which are not clear and which echo make successful meetings difficult, background noise can be very distracting and even coughing, rustling of

papers and talking by any of the other participants could be impediments to effective teleconferencing.

Different time zones

The global work place requires due consideration that meetings will take place in different time zones. While some participants will be in early morning, others may already be in late afternoon. This may influence the pace of the meeting and needs to be taken into account when virtual meetings are arranged. The working days, weekends and holidays in different countries spanning different time zones may not coincide, reducing the number of overlapping days when meetings can be arranged to suit participants. This needs to be taken into consideration when planning projects and determining project time lines. If the completion of a project will depend heavily on regular meetings, the number of days when meetings can be held needs to form part of the projection of the schedule and work plan.

Conclusion

Good management of information and communication technology can improve efficiency and productivity, it can be cost effective and make the virtual office work, but, like all technologies, requires some new approaches and sensitivity to specific pitfalls.

A good chairperson and participants who are aware of the implications of technology on meetings held through cyberspace can make technology work well for them. It can save time and money; it can enhance efficiency and improve communication. Technology, if used well and with sensitivity, can lead to better and shorter meetings and increase productivity. Awareness of the role of participants, the chairperson and sensitivity to the demands made by technology on participation, can minimize the pitfalls associated with the use of technology in the modern office.

Technology should be made a friend of the meeting, should enhance the quality of participation and make for better decisions and should not detract from the meeting or influence decisions. The chairperson can play an essential role to ensure such smooth integration of technology into the work place.

SYSTEM SPOTLIGHT

RFID

RFID and Privacy

Radio Frequency Identification (RFID) is an increasingly popular successor to barcodes for the management of the library inventory. The RFID label contains a chip on which can be encoded a small amount of information, including a unique identifier for the item, shelving location and other bibliographic information. The information encoded on the chip can be read by an RFID reader from a distance of generally less than 2 metres. RFID offers advantages for the management of the library inventory and enables improved customer service such as customer self-checkout.

The RFID chips currently in use in libraries can be read by any suitable RFID reader, although this reader must be at a short distance from the chip. The capability to read RFID information remotely introduces potential issues of privacy for library patrons.

The European Union has initiated an EU Consultation on Radio Frequency Identification (RFID) entitled "Draft Recommendation on the implementation of privacy, data protection and information security principles in applications sup-

ported by Radio Frequency Identification (RFID)". The draft recommendations cover issues of RFID implementation generally, and contain specific recommendations with regard to privacy and the adoption and management of RFID.

The IFLA Information Technology Section was approached by Stuart Hamilton, Senior Policy Advisor, IFLA Headquarters on 13th August to provide a response to concerns raised by 3M and other RFID vendors with regard to the Draft Recommendation. 3M raises concerns with regard to the looseness of definitions in the Draft Proposal (for example what does "Public Space" mean), and the lack of reference to existing standards in this area.

The EU Consultation on RFID standards takes a strong stand on privacy issues surrounding RFID usage, particularly in the context of retail use, including:

- Mandating a privacy & implementation review processes
- Including some specific requirements on RFID implementation

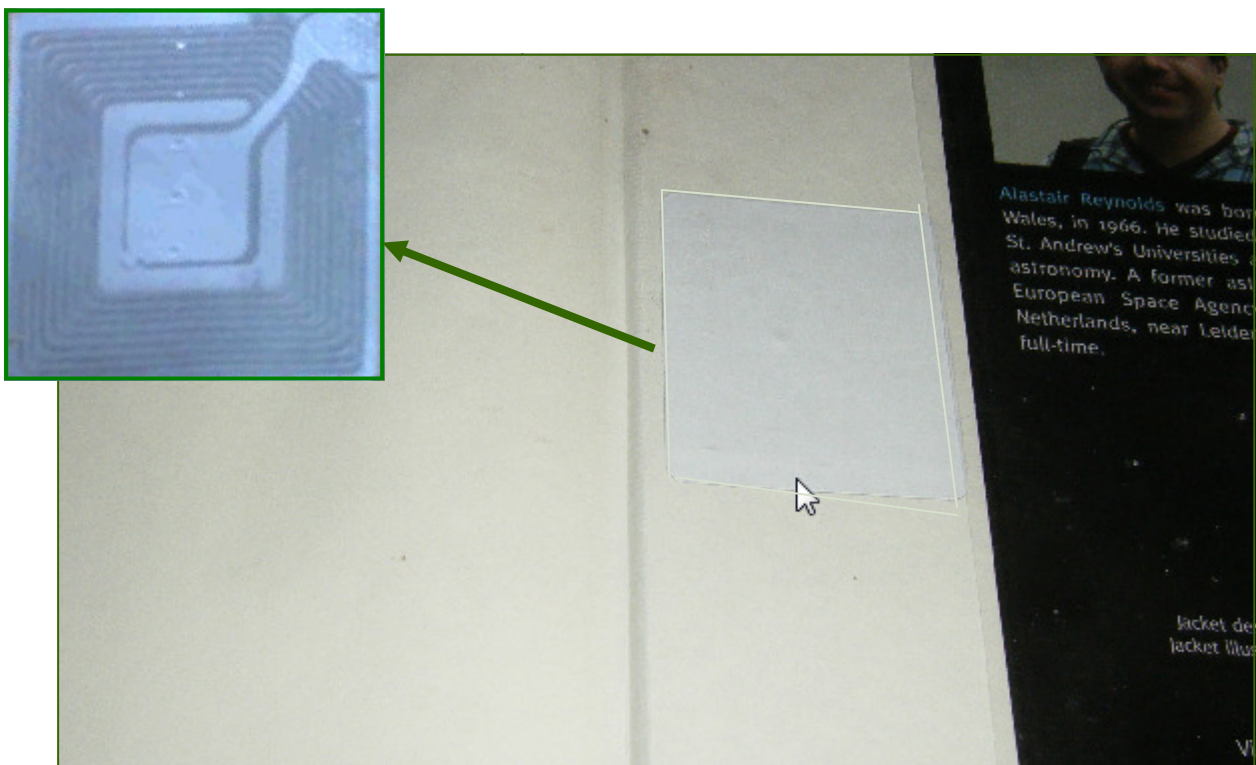
Emerging standards & privacy issues

The International Standards Organisa-

tion has a working group in relation to RFID. The ISO TC46/SC4 working group on an RFID. The focus of the working group has been on data format standards and RFID interoperability with library systems. However this working group has discussed issues of privacy. Their reports include **ISO/CD 28560-1**, which deals with the RFID data model and integration with Library Management Systems. **ISO/CD 28560-2**, focuses principally on the RFID encoding approach. **ISO/CD 28560-3**, dwells on the technical details of the communications interface.

In addition to this ISO work, the US National Information Standards Organization (NISO) has released a *Recommended Practice* (RP) for RFID in US Libraries (NISO RP-6-2008). The NISO Working Group has developed these standards in co-operation with ISO, and NISO have released an extensive discussion of RFID in US libraries in 2008 (NISO RP-6-2008).

In the context of the existing international work toward standards in RFID implementation, there does appear to be overlap between the requirements being tested in the EU consultation and the



standards under development at ISO/ NISO. Lack of reference to ISO and other emerging standards in the EU consultation is a concern identified by 3M.

While a central tenet of RFID is inventory management, the type of management needed by libraries differs in some respects from that of the general retail chain. Stock is generally transient in a retail outlet, and RFID plays a role principally in the stock supply chain and sales management. Library holdings are persistent, and RFID offers a long-term benefit to libraries as long as the RFID provides a persistent identifier for the item. RFID can serve a role both in the lending processes and the stock location and stock taking of library holdings.

The RFID tag has a unique identifier, but can be further supplemented with additional information: including potentially the ISBN, call number and other location/sorting information for the item. In most cases the information stored on the RFID chip is publicly accessible to any suitable RFID reader, limited mainly by the limitations of reading distance.

Previous discussions in the IFLA IT section have been focussed on technological issues (Lindquist, 2003). The EU consultation addresses privacy issues relating to RFID and proposes (in a retail context) that the default option on purchase of items is that the RFID be disabled at checkout and in "public places". The disabling or erasing of the RFID information has obvious implications for the logistics of library applications.

At the IFLA World Congress in Quebec, 2008, the IFLA Information Technology section reviewed issues raised by the EU consultation, along with recent developments in RFID technology.

The privacy issues affecting RFID implementation in libraries include:

- Tracking* – following the movement of the book/item by RFID number
- Hotlisting* – building up a database associating titles to their RFID and tracking their movement

Most current RFID implementations in libraries currently rely on the need for proximity in order to read RFID tags, and store only minimal information—a tag ID which matches with a bibliographic identifier

on the library management system. A higher level of privacy protection would be obtained if the communication process also employed an private key encryption or otherwise secure communication process. This would make both tracking and hot listing more difficult to achieve.

One concern identified in discussions within the IFLA information technology section was the risk of identification associated with retail RFID chips where they co-exist with library RFID chips. Even where the library RFID chip may be relatively anonymous, the retail chain RFID may encode information such as the ISBN of the item. With the growing prevalence of RFID chips in the retail chain it may also be necessary to remove any existing retail chain RFID chips, or require that these are removed or disabled prior to acquisition by the library.

Overall, the benefits obtaining from RFID look to be significant for libraries, but these benefits would be largely frustrated should there be a requirement to remove or disable the RFID on checkout. The discussions within the IFLA IT section also highlighted the potential for private key encryption as a method for further securing the information on the RFID.

The following were the recommendations on RFID implementation emerging from this committee:

1. EU standards should be framed in the context of existing ISO standards and emerging library-specific standards from the ISO TC46/SC4 working group
2. Preference should be given to implementations that store the minimum static data to match RFID tags to Library Management Systems - such as the use of the unique tag ID of the RFID device, with data matching occurring at the LMS application level only.
3. Preference should be given to systems which have some form of Private Key encryption or password based access. While this may have implications for inter-library inter-operability, there are benefits to the library both in greater privacy enhancement (with the availability of low cost RFID readers) and prevention of damage to RFID devices through use of unauthorised RFID writing.
4. With the likely adoption of RFID in the

bookseller retail chain, libraries should consider disabling any retail chain RFID tags prior to shelving of items in the library, unless these devices are compatible with the above. Retail chain RFID have the potential to contain obviously identifiable information such as EAN.

Further reading

NISO (2008). RFID in U.S. Libraries. December 2007. <http://www.niso.org/publications/rp/RP-6-2008.pdf>

Matts Lindquist. 2003. RFID in libraries - introduction to the issues. <http://www.ifla.org/IV/ifla69/papers/161e-Lindquist.pdf>

NISO (2008) RFID Recommended Practice. <http://www.niso.org/standards/resources/RP-6-2008.pdf>

ISO. ISO 28560 – <http://www.bs.dk/standards/rfid> Inter-operability standards & data model)

Ayre, Lori (2004). Position Paper: RFID and Libraries http://galecia.com/included/docs/position_rfid_permission.pdf "Libraries should not yet implement RFID systems. Instead, libraries should be among the entities putting pressure on government and industry entities to develop standards, public policy and best practices guidelines for its use. Libraries that choose to implement RFID technologies in advance of policy safeguards being put in place should take extra precautions to follow evolving best practices guidelines.", p.16

ALA blog on RFID: <http://www.libraryrfid.net/wordpress/>

ALA technotes on RFID: <http://www.ala.org/ala/pla/plapubs/technotes/rfidtechnology.cfm>

Edmund Balnaves
Information Officer
IFLA ITS

Information Technology Section QUEBEC MEETING REPORT

Report by Edmund Balnaves

The ITS Standing Committee met before and after the IFLA Congress at Quebec. The following is a summary of the key discussions at these meetings and affiliated planning sessions. The full minutes have been circulated and can be found at <http://www.ifla.org/VII/s21/index.htm>. The following are some highlights from the meeting.

Cooperation with the Cataloguing section

Eva Müller reported about the meeting she took part on the Working group on metadata. She noted that FRBR and CDOC came together. The IT Section can connect the bibliographic terminology and try to contribute more to their activities and vocabulary problems. Unifying the language will be helpful for both sides. There were different levels of discussion: OAI, Europeana, digital objects, uniform modelling languages etc. There is a need of guidelines about understanding IT terminology.

Digital Libraries Group

Catherine Lupovici reported about the session of the Digital Libraries Group on which she took part. There was an initiative of the World Digital Library by the Library of Congress and supported strongly by UNESCO and IFLA to write guidelines to create digital libraries. The Guidelines will be IFLA's with compliments to UNESCO. The content will be on a political level with the goal to push countries and institutions to sponsor these activities, and avoiding political interfering. They will try to focus into a curatorial approach, at the same level as other IFLA guidelines. The draft will be finished by Spring 2009 and will be circulated to IFLA members. The evaluation phase will start 2-3 months before next IFLA. They, together with Claudia Lux, will decide or review it in Milan. It was not possible to discuss about it before since it was a closed session.

Highlights and experiences of the 2008 Conference

The members of the IT SC consider that the more focused sessions seemed to attract more audience. It was also observed that longer sessions divided in two parts had less attendance in the second half. Interesting formats included:

- Presentations and small discussions.
- Panel situation with reactions from the audience.

- Moving discussions from table to table – if there are enough chairs people can move through the room and stay in the place where they find free chairs.
- Project based contributions – discussions in small groups.
- Speaker corners, requiring the audience to move from corner to corner – this is not so good, since depends on good facilitators and the people can be confused trying to find the right topic.

It was decided to suggest the IFLA HQ to reserve three rooms for the session IT core session next year. We shall decide on the format closer to the date of the next conference.

Session papers well received

IT and PCS sessions have published all the papers online, which was very well accepted by the participants.

Paper selected for IFLA Journal

After a vote, the ITS committee selected the paper by Anthony Browne (East Renfrewshire Council, Community Services, Scotland, UK) and Christine Rooney-Browne (Department of Computer and Information Sciences, University of Strathclyde, Glasgow, UK): *Punching above our weight: a small Scottish Library Service joins the global community*.

Milan 2009

Satellite conference in Florence: "Emerging trends in technology: libraries between Web 2.0, semantic web and

Appointment of contact points between Local Organisers and Planning Committee Members: the IT Section will be cooperating with the local organizer Maurizio Lunghi, Fondazione Rinascimento Digitale.

The IT satellite conference will take place on 19-20 August 2009. The present IT SC members were asked to decide about this date. The problem was, that the organizers preferred the dates 20-21 August (Thursday-Friday) in order to shorten the stay in Italy and diminish the overall costs. But IFLA preconference meetings already start on Saturday 22 August and it can produce some difficulties in the transfer to Milano. The Call for papers and the proceedings will be hosted by IFLA Website. In addition, Fondazione Rinascimento Digitale will give to papers a permanent identifier. The IT section will be responsible for the content of the event.

IT core session

A range of interesting themes were discussed (refer to the full minutes for a complete discussion). It was decided to address the topic: "New repositories' architectures interoperability and data exchange in the IT core session. This theme will cover issues of interoperability in all types of libraries, open mass-up that occurs in services and open sources, convergence with archives..

Joint sessions with other sections

There are various open possibilities to cooperate with other sessions. For instance including a possible joint session with the Continuing Professional Development & Workplace Learning section including ideas in learning and understanding IT and dealing with the new digital heritage. It would also be interesting to cooperate with the Knowledge Management Section regarding new technologies and information organization. Cooperation with the National Libraries Section on digitization and strategy business plan. We can tell them that if there is a need for technical support in selecting papers we would like to cooperate - Tsebebe will contact the section.

Brisbane 2010

A possible satellite conference for Brisbane 2010 was discussed, in collaboration with the Knowledge Management section: Preserving knowledge in indigenous culture; Knowledge management and knowledge exchange in the indigenous cultures; Linguistic management tools and retaining knowledge at the top

Communication Infrastructure IFLA

The new IFLA web site showed positive results. It includes a virtual working group for full activities. The ITS section will be working on updating our section site and introducing IFLA-hosted discussion groups/wikis.

Information Technology Section TECHNOLOGY NEWS

UPDATE ON WEB ARCHIVING (WARC) FORMAT

WARC (ISO 28500) a standard for web archiving

Report by Christian Lupovici

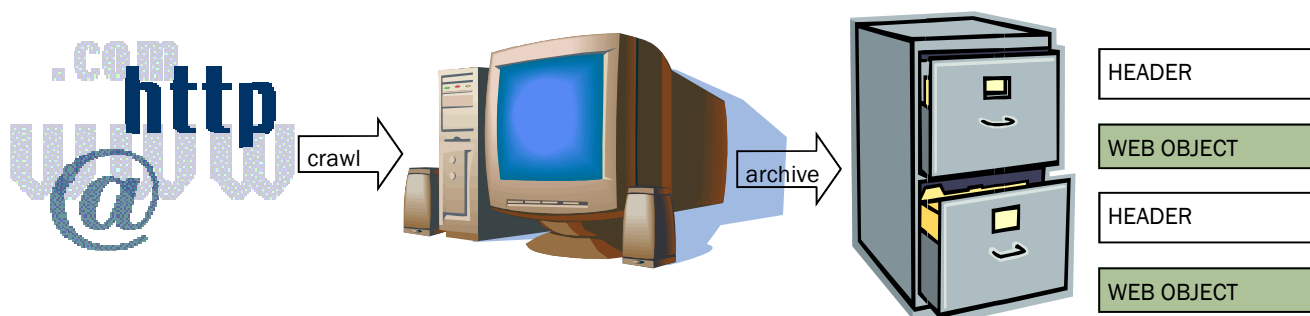
The WARC (Web ARChive) file format is about to become an ISO standard (ISO 28500) by the beginning of 2009, three years after the first submission as an ISO New Work Item in 2006.

The ISO TC46/SC4/WG12 has finished its work on the standard but will remain alive to play the role of a maintenance agency and take care of the possible corrections or evolutions requested in the future.

The WARC format has been prepared as an enhancement of the ARC file format that has been used since 1996 by the Internet Archive (IA) for managing billions of objects, and by several national libraries.

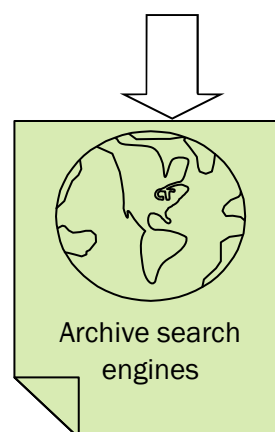
The WARC format is a standard way to structure, manage and store billions of resources collected from the web and elsewhere. It will be used to build applications for harvesting (such as the open source Heritrix web crawler), managing, accessing, and exchanging content. The way WARC files will be created and resources will be stored and rendered will depend on software and applications implementations. Besides the primary content recorded in ARCs, the WARC format accommodates related secondary content, such as assigned metadata, abbreviated duplicate detection events, later-date transformations, and segmentation of large resources. It may also be useful for more general applications than web archiving.

The WARC file format is made sufficiently different from the legacy ARC format files so that software tools can unambiguously detect and correctly process both WARC and ARC records; given the large amount of existing archival data in the previous ARC format, it is important that access and use of this legacy not be interrupted when transitioning to the WARC format.



The motivation to extend the ARC format arose from the discussion and experiences of the International Internet Preservation Consortium (IIPC), whose members include the national libraries of Australia, Canada, Denmark, Finland, France, Iceland, Italy, Norway, Sweden, The British Library (UK), The Library of Congress (USA), and the Internet Archive (IA). The California Digital Library and the Los Alamos National Laboratory also provided input on extending and generalizing the format.

The format is used to store "web crawls" as sequences of content blocks harvested from the World Wide Web. It offers a convention for concatenating multiple resource records (data objects), each consisting of a set of simple text headers and an arbitrary data block into one long file.



(<http://www.netpreserve.org/about/index.php>)
International Internet Preservation Consortium

IFLA 2009 SATELLITE PRE-CONFERENCE CALL FOR PAPERS

Sponsored by the IFLA Information Technology Section

"Emerging trends in technology: libraries between Web 2.0, semantic web and search technology". Florence, 19-20 August 2009

The International Federation of Library Associations and Institutions (IFLA) and its Information technology Section in collaboration with [Fondazione Rinascimento Digitale](http://www.fondazione-rinascimento.org/) are organizing a pre-conference and satellite meeting in Florence (Italy) from August 19 to 20, 2009. This is held in conjunction with the IFLA annual conference, which takes place in Milano (Italy), the following week (<http://www.ifla.org/IV/ifla75/index.htm>)

THEME AND OBJECTIVES

Technological advances in the past several years have enabled libraries to create new services that before were not possible, such as personalized OPAC interfaces, semantic searches using different types of multimedia resources, different kinds of visualizations, downloading media that could be used for research purposes, etc. So we have an increasing range of services which can fit very closely to the specific needs of users. In parallel the development of Web 2.0 technologies are having an important impact on library services, with the emerging Library 2.0 model. This new library 2.0 requires a user-centred orientation and encourages constant and purposeful change in which the users take active part in the creation of both the physical and the virtual services they need. Social networks, virtual access, tagging, blogging, wikis are just part of this new dimension and are open to librarians as well as to old and new users' participation. The limits between the creation and the usage are lost and the library becomes a meeting point where people share their interest and problems with each other with a high potential on interoperability, exchange and the transition of classic isolated fields in the information infrastructure up to dedicated communities and their specific workspaces. Some of these ideas are much older and have their origin in the basic ideas of the semantic web. We have a revival of these ideas: earlier statements like "too much complex" change to approaches which try to characterise data in the specific syntax of the semantic web and doing this the access to those data becomes open now for web applications. In this sense the new web technologies influence the potential access to information too.

In this two-day conference we would like to address the synergies and potential use of all these three different aspects, the new web technologies, the semantic web and the existence new search technologies, which are having a deep impact in the services of the library-scene. The first day will be dedicated to the introduction into the new services and different aspects which are related to the new technologies in libraries - best done by offering good examples of implementation and service. We would like to answer to the following questions: What are Web 2.0 technologies and what are its implications for libraries? How we could integrate users in the library services and offer them better access to the needed information? What is the semantic web? What are the characteristics of new search technologies? The second day will be dedicated to upcoming trends and new developments in the area of library services by using the new technologies. Do we expect in the field of implementation of Web 2.0 technologies in libraries the next generation library-system, do we expect different kind of semantic visualizations and use of semantic web solutions? What can we say today about the net of knowledge and the role of libraries?

TOPICS FOR THE CONFERENCE

- Theoretical, practical and technological introductions into the new technologies and their use in libraries;
- Change functionality and technology patterns related to new services in libraries and information services;
- Experiences with and evaluation of new technologies and library services;
- Prospective questions in the area of technologies and library services;

NOTE: It is important to note that the basic technology per se is not the theme of the conference, but rather its implantation and use.

HOW TO SUBMIT A PROPOSAL

Interested persons are invited to submit a proposal of no more than 1000 words for a paper and presentation of about 25 minutes on the topics listed above till 10 January 2009. Please include full contact details and a short biography for all co-authors. The reviewing process will be finalised beginning of 2009. All submitters will be informed by email of the results of this review immediately. Please submit your paper to Alenka Kavčič-Čolić (alenka.kavcic@nuk.uni-lj.si).

Languages accepted

English is the official language of the conference and proposals should be submitted in this language.

Attendance costs

Presenters and those attending the conference are responsible for their own travel and accommodation costs and for payment of pre-conference fees.

Important Dates

Proposal submission: deadline 10 January 2009

Notification of acceptance: by 31 January 2009

Deadline for full text of the presentation: 31 May 2009

SCIENTIFIC COMMITTEE

The scientific committee will be formed by international experts partially from the standing committee of IFLA Information Technology Section, partially from dedicated professionals in the area of library 2.0 projects, Semantic Web applications and future trends in information technology.

IFLA 2009 CALL FOR PAPERS—JOINT STATISTICS/IT SESSION

Sponsored by the IFLA Information Technology Section

Statistics for the Cultural Heritage

This call for papers is jointly sponsored by the:

- Statistics and Evaluation Section
- Information Technology Section
- Preservation and Conservation Section

Conference Theme: Libraries Create Futures: Building on Cultural Heritage

Theme for presentations: "Statistics for the Cultural Heritage"

Topics

This is the first call for papers on the use of statistics for building the future of our cultural heritage and IT-based services to create or present the field. Topics for submission can include:

- the development of statistical measures and methods to show the impact of cultural heritage services
- metrics for uptake of cultural object of different types
- the use of statistics to show the growing need for preservation, digitization or other it-based activities like multimedia retrieval, semantic search
- the evaluation of cultural heritage services

Submission requirements

Papers may be presented at the conference in any IFLA working language (Arabic, Chinese, English, French, German, Russian, and Spanish). Presentations should be no more than 20 minutes in duration. Proposals for papers should be in English and include an abstract of no longer than 250 words. A short biography of the presenter and contact information (name, full address, phone, fax, email, etc) should be included with each submission. Full papers must be between 3000 and 6000 words in length.

Submission proposals

Proposals should be submitted by January 18, 2009 to: Email: mfarrell@imls.gov or pollr@uni-muenster.de

Please note: All expenses incurred for attending the Milan conference are the responsibility of the authors whose papers are accepted. Authors/presenters are expected to attend the World Library and Information Congress and present their papers in person. All materials will be reviewed by the Review Committee and successful applicants will be notified by February 23, 2009. Accepted papers are due to IFLA on April 15, 2009 and must be an original submission not published elsewhere.

IFLA 2009 CALL FOR PAPERS—IT SESSION

Sponsored by the IFLA Information Technology Section

New repositories: architectures interoperability and data exchange

World Library and Information Congress: 75th IFLA General Conference and Council

"Libraries create futures: Building on cultural heritage"

23-27 August 2009, Milan, Italy

CALL FOR PAPERS

The IFLA annual congress provides an opportunity to present library research and outcomes in Information Technology and Innovation in a multi-disciplinary international forum. The IFLA Information Technology Section invites technologists, librarians and other interested parties working in the field of digital library infrastructure to submit proposals for papers in a 2-hour session in Milan, Italy.

THE TOPIC

This theme will cover issues of (technical / data driven) interoperability for all types of libraries when dealing with the massing up of digital repositories in a manner that supports open services, including the convergence with archiving solutions and new challenges for digital libraries from the point of view of services versus user impact. In keeping with the theme of the 75th World Library and Information Congress, "Libraries create futures: Building on cultural heritage", we invite papers that showcase:

- Successful models of interoperability between different types of digital archives and repositories.
- Various experiences in data exchange between multimedia archives.
- New services based on successful interoperability solutions, as distributed systems and federated access to digital archives/repositories.
- Development of open APIs and open source solutions which helps to facilitate advanced services based on metadata from various type s of collections and organisations.
- Case studies in open source application deployment (e.g. Library Management Systems) that enhances digital archive interoperability between a diverse range of libraries.

SUBMISSIONS

1. The deadline for submitting a detailed, abstract (500 words) and full author details is 15 December 2008. Selection of papers is based on the abstract, and presenters will be notified by mid-February 2009 at the latest whether they have been successful.
2. All submissions should be sent to Alenka Kavčič-Čolić, Secretary of the Information Technology Section, e-mail: alenka.kavcic@nuk.uni-lj.si.
3. The full paper is due on 31 May 2009 and must be an original submission not published elsewhere.
4. Both abstracts and full papers should be submitted as a MS Word file by e-mail; fax or post should be used only as a last resort.
5. Papers should be of up to 4000 words.
6. Papers should be in English with an abstract, and the presenter must be fluent in English.
7. 20 minutes will be allowed for a summary delivery of the paper in the Conference.
8. The author(s) should indicate his/her personal full contact details and include a summary curriculum vitae with the paper. Also, a digital photograph would be useful.

Invited are the following types of contributions: papers, research studies and reports on practices and advances that will be presented at the conference and included on the conference Web site.

The abstracts will be reviewed by members of the Information Technology Section's Standing Committee.

15-20 minutes will be allowed for a summary delivery of the paper during the Section's open programme in Milano.

Selected papers can be nominated by the committee for inclusion in the IFLA Congress Journal. Some papers not selected for the IT Session may be selected for publishing in ITS Newsletter.

TRAVEL & ATTENDANCE COSTS

Please note that the expenses of attending the Milano conference (including travel, expenses and conference fee) will be the responsibility of the author(s)/presenter(s) of accepted papers, and at least one of the presenters/authors must be present for the program.

Reinhard Altenhöner

Chair: Information Technology Standing Committee

E-mail: R.Altenhoener@d-nb.de

ITS IN BRIEF

STANDING COMMITTEE MEMBERSHIP

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Information Coordinator	Edmund Balnaves <i>Prosentient Systems</i>	Australia	ejb@prosentient.com.au

2005-2009

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