CONFERENCE OF DIRECTORS OF NATIONAL LIBRARIES (CDNL)
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REPORT OF THE CDNL COMMITTEE ON DIGITAL ISSUES

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The *CDNL Committee on Digital Issues (CDI)* was established at the CDNL meeting in Boston (August 2001). The CDI is a platform for exchanging information and promoting co-operation on research concerning digital issues. The CDI Work Programme covers the various aspects: the policy, organisational and technical issues, but also the best practices in this field. The programme was in its basic form approved at the CDNL meeting in Edinburgh, August 2002 and has meanwhile been updated and detailed further. For the latest version see Annex 3.
The work of CDI is for practical reasons organised in three Work Groups, Digital Preservation, Bibliographic Standards for Access, and Deposit Agreements. This report covers in a nutshell the most important activities during the first part of the 2-year work programme.

SUMMARY OF TOPICS FOR DISCUSSION AND ACTION

▪ To discuss the possibility for other national libraries to join the consortium of BL, DDB and KB as general member of the International DOI Foundation.
▪ To discontinue CDI and gradually transfer relevant CDI activities to ICABS.
▪ To contribute to the PADI section on persistent identifiers in order to share their experiences.
▪ To provide information on deposit agreements in several countries as to up-date the information on the PADI website
▪ To incorporate on the PADI website the results of the joint efforts of libraries and publishers (CENL & FEP, IFLA & IPA) in the field of depositing electronic publications (in addition to the initiatives of individual countries).

1. DIGITAL PRESERVATION

UNESCO Draft Charter on the preservation of the digital heritage

After the adoption of the UNESCO Resolution on the preservation of the digital heritage, which was submitted by the Netherlands on the invitation of the CDNL, the UNESCO Secretariat commissioned Yola de Lusenet from the European Commission on Preservation and Access (ECPA) to write a discussion paper and formulate elements for a Draft Charter. UNESCO circulated a Preliminary Draft to the Member States for broad consultation. Several regional expert meetings were held:
(a) Asia/Pacific: 4-6 November 2002 in Canberra, Australia;
(b) Latin America/Caribbean: 18-20 November 2002 in Managua, Nicaragua;
(c) Africa: 9-11 December 2002 in Addis Ababa, Ethiopia;
(d) Baltic countries: 18-20 December 2002 in Riga, Latvia;

(e) Central European countries, 17-18 March 2003 in Budapest, Hungary.

These consultations were held in close co-operation with the concerned National Commissions for UNESCO and built sequentially on each other. They reviewed digital preservation challenges in the respective regions. Participants discussed and prepared comments on the Preliminary Draft Charter, and a second document setting out detailed technical Guidelines on the preservation of digital heritage, prepared for UNESCO by Colin Webb of the National Library of Australia. The Guidelines are intended as a companion sourcebook to the Charter. The Secretary of the CDI, Johan Steenbakkers, was invited to attend the Canberra meeting and to give his expert advice. He also attended an expert meeting organised by the National UNESCO Committee in the Netherlands. The comments and outcomes of the Canberra meeting served as an input for the Managua meeting, which followed a similar pattern, and so on. Revised versions of the Preliminary Draft Charter were produced in the course of this sequential process and fed back into it, as the comments accumulated.

A consolidated version was prepared taking into account the discussions at the 166th session of the UNESCO Executive Board and at the second session of the Intergovernmental Council for the Information for All Programme in April, as well as all contributions received. The consolidated Draft Charter:
-    is relatively short, concise and to the point;
-    clearly states the problem and proposes achievable solutions;
-    communicates the relative urgency of the situation;
-    defines "digital heritage" as a distinct set within the totality of digital media;
-    aims to be inspirational and declarative rather than prescriptive;
-    envisions a process leading to an international recommendation.
The Draft Charter is expected to be on the agenda of the UNESCO General Conference 32nd Session, Paris 2003.

Research & Standardisation

CDI - Workspace
The National Library of Australia has created a CDI work space as part of the CDNL members page at the PADI website. The CDI workspace is used for publishing and discussing the results of both unilateral and joint research efforts.

Collaborative Research Initiatives
In the past year several actions have been undertaken by national libraries, relating to studies of and research on digital issues. (See for an overview e.g. the websites of PADI and DPC). In this report we will focus on two major initiatives, promoting collaborative research on digital preservation, one in Europe (PATCH) and one in the USA (NDIIP).
But first we would like to give a helicopter view of the research area Digital Preservation. Considering this area as a whole, two main fields can be distinguished. The two fields reflect the essence of the problem of digital preservation. Hence, there are two problems to be addressed:
(1) to maintain through time the 'digital objects', containing the information, and
(2) to guarantee 'permanent access' to the digital information in the objects, in spite of obsolescence of formats, software, and hardware.
Maintaining the digital objects by creating a 'Safe Place'

For the problem of maintenance of digital objects, the European project NEDLIB has consolidated in its 'Guidelines for setting up a Deposit System for Electronic Publications' a wide range of internationally acquired results. A strategic choice of NEDLIB was to transfer the electronic publications from the publishing environment to an archiving environment (nowadays indicated as a 'Safe Place'). Using 'The NEDLIB Guidelines' the Koninklijke Bibliotheek (KB) and IBM-Netherlands jointly have been able to develop the first deposit system, compliant to the standard for archival systems (OAIS). The deposit system was implemented in 2002 as the technical hart of the 'e-Deposit' of the KB. As a result major international publishers (Elsevier Science and Kluwer Academic) have signed an agreement with the KB for permanent archiving of all their electronic publications. Actually some other national libraries and archives are making preparations to acquire a deposit system.

Guaranteeing permanent access

The problem of permanent access to digital information, up to now has been addressed by several, however scattered and small-scale, initiatives. The first attempt to consolidate the experiences and results of these studies and experiments has been undertaken by the 'PATCH consortium', a group of national libraries and archives, universities, research institutions and ICT-companies. This PATCH initiative is aiming at a technological framework to promote continuous development of solutions for permanent access.

PATCH 'Creating the Permanent Access Toolbox for digital Cultural Heritage' is an Integrated Project proposed by the 'PATCH – Consortium' in April 2003 to the EC for co-funding within the 6th Framework Programme. The total costs for PATCH are estimated to be 12,700 K€ For a short summary see Annex 4.

The status at the moment of writing this report is that, although PATCH has been qualified in the evaluation process as a strategic and good proposal, the European Commission will probably not co-fund this initiative within the actual programme.

NDIIP 'Preserving our Digital Heritage. Plan for the National Digital Information Infrastructure and Preservation Program. A Collaborative Initiative of the Library of Congress.' (October 2002). The costs of this plan will amount up to a total of 175,000 US K$ and is substantially co-funded by the Congress of the USA. Information on the status of NDIIP can be found on the website of the Library of Congress.

2. BIBLIOGRAPHIC STANDARDS FOR ACCESS

PADI Section on Persistent Identifiers

On the PADI website is a section with information on persistent identifiers, offering a comprehensive overview of current tools and practices. All CDNL members are invited to contribute to the section on persistent identifiers in order to share their experiences.

Membership of the International DOI Foundation

Consortium of national libraries
In the CDNL meeting last year it was agreed that Wim van Drimmelen would approach the International DOI Foundation (IDF) seeking gratis membership of the Foundation to enable CDNL to monitor DOI progress. The director of the IDF, Norman Paskin, had approached a number of individual national libraries, but it was

the general consensus that some form of consortial membership was preferable to individual membership. This matter was taken further by CENL, as CDNL is not a legal entity and therefore could not join the IDF. CENL could be a formal member, as it is a legal entity under Dutch law. However, a decision on CENL membership can only be taken at the annual meeting of the Board of Directors in September 2003. To be able to move forward, it was proposed that a temporary consortium of national libraries would jointly become member of the IDF.

The IDF considered a joint approach through an informal consortium an acceptable first step, but did not agree with gratis membership. After a discussion in the CoBRA Forum (the CENL Standing Committee for projects) on April 9th in The Hague, The British Library, Die Deutsche Bibliotheek and the Koninklijke Bibliotheek, joined the IDF as a consortium for a reduced annual fee (see annex 2 for the press release). Johan Steenbakkers, secretary of the CDI, will act as the official representative of the consortium.

Benefits of national library membership

The consortium is able to influence IDF developments as well as benefit from information and participation. Others than the official representative may participate in working groups. The consortium is entitled to one "participation", which is not always restricted to one individual, depending on circumstances and needs. The benefits of membership participation flow downward to subsidiaries of members. In the case of CENL, this means that national libraries are (for IDF's purposes) "subsidiaries" of CENL. The monthly report for example would be sent to the CENL representative, and could certainly be seen by the members of the consortium. However the IDF does not wish this to be distributed in its entirety to the whole CENL or CDNL list – the aim is exchange of relevant information. If the representative sees something that is of mutual interest, it can be brought to the attention of the library community; or the CENL representative can inform the IDF of some relevant library work.

Next steps

As a legal body CENL could become a member of the IDF. Formal IDF membership will be discussed at the CENL annual meeting in Vilnius (Lithuania) in September. As the outcome is uncertain, the possibility of other national libraries joining the consortium of BL, DDB and KB could be discussed at the CDNL meeting in Berlin.

3. DEPOSIT AGREEMENTS

Provisions to cover electronic publications

In several countries actions have been undertaken to extend their deposits agreements to incorporate the depositing of electronic publications. These actions differ from country to country, depending on the character of the deposit agreements (legal or voluntary depositing). But also within similar frameworks, the content of the agreements is still very different. The CDI is trying to promote some convergence by maintaining an overview of (draft) deposit agreements in a special section on the PADI website. However several countries described in this PADI section, have yet to update the information on their deposit agreements.

Gerard van Trier and Yola de Lusenet (ECPA) started talks with IPA with the aim of carrying out the decision of CDNL to prepare a joint statement of CDNL and IPA on codes of practice for the voluntary deposit of electronic publication. This would be a follow-up of the joint statement of CENL and the Federation of European Publishers, which is being updated.

In updating the PADI section on deposit agreements it is appropriate to also incorporate the results of the joint efforts of libraries and publishers (CENL & FEP, IFLA & IPA) in the field of depositing electronic publications (in addition to the initiatives of individual countries).

4. FUTURE OF CDI IN THE LIGHT OF ICABS

Die Deutsche Bibliothek took the initiative to establish the IFLA-CDNL Alliance for Bibliographic Standards (ICABS) as a follow-up to the former UBCIM core activity, which was hosted by Die Deutsche Bibliothek from 1990 to the beginning of 2003. IFLA decided to support the initiative. The six partners of the Alliance (BL, DDB, KB, LoC, NLA and NLP) will meet on August 7th during the IFLA conference in Berlin. ICABS aims:
1. to maintain, promote and harmonise existing standards and concepts related to bibliographic and resource control
2. to develop strategies for bibliographic and resource control and ensure the promotion of new and recommended conventions
3. to advance understanding of issues related to long-term archiving of electronic resources

There is a considerable overlap between the aims of ICABS and the aims of two CDI Work Groups: (a) Work Group Bibliographic Standards (promote common solutions) and (b) Work Group Digital Preservation (promote collaborative research, raise awareness). Maintaining both CDI and ICABS would mean a considerable duplication of work. On June 6th Wim van Drimmelen consulted the CDI members on a proposal to merge the two bodies. ICABS would provide the governance structure and could profit from CDI's organisational structure, which was set up last year. The NLA would continue to co-ordinate the work of CDI's third Group (on Deposit Agreements) as a separate international activity.
It was agreed that duplication of work must be avoided. Die Deutsche Bibliothek prefers to start ICABS with a small group of libraries, which could be enlarged at a later stage. It would take some time for ICABS to prepare for a concrete start.
It is proposed that CDNL take the decision to discontinue CDI; relevant CDI activities will gradually be transferred to ICABS. The Chair and Secretary of CDI will monitor the transition process and provide any assistance when needed.

Annex 1 - Committee members

The committee on digital issues is established under the chairmanship of Wim van Drimmelen (Koninklijke Bibliotheek, Netherlands). The committee members are:

NLA   Jan Fullerton
LC   Winston Tabb
BL   Lynne Brindley
NLC   Roch Carrier
HUL   Kai Ekholm
DDB   Elisabeth Niggemann
KB   Chair: Wim van Drimmelen
Secretary: Johan Steenbakkers

Mission statement
The Committee on digital issues was established by the Conference of Directors of National Libraries (CDNL) to promote concerted actions for the benefit of core national library tasks in the digital environment.

Annex 2 - DOI News Release

April 22, 2003

National Libraries Join International DOI Foundation

The International DOI Foundation (IDF) announces that an informal consortium of three major national libraries -- The British Library (UK), Die Deutsche Bibliothek (Germany) and the Koninklijke Bibliotheek (The Netherlands) -- has joined the International DOI Foundation.

This General Membership results from actions proposed by the IFLA/IPA Steering Group in 2002, which recognised that national libraries are best placed to lead DOI adoption within the library community, in particular given their role in associating bibliographic information to national collections. IFLA's 2003 meeting resolved that it would encourage libraries, and especially national libraries, to join the IDF. Parallel to this the Conference of Directors of National Libraries (CDNL) decided at its annual meeting in Edinburgh (2002) to explore the possibilities of national libraries joining the IDF as a consortium. Following a consultation procedure between IDF and six national libraries present at an informal meeting in Frankfurt, October last year, the BL, DDB and the KB are joining the IDF, in anticipation of a proposal for membership being considered by the Conference of European National Librarians. The CENL Board of Directors will decide on formal IDF membership of CENL at its meeting in Vilnius in September.

Through this relationship, a selection of DOI information that is directly relevant for national libraries will be made available via the consortium to the wider CENL and CDNL community.
Dr. Wim van Drimmelen, Director General of the Koninklijke Bibliotheek which will be the co-ordinator of the consortium, said "I am looking forward to our co-operation, which I hope will be to the benefit of libraries as well as publishers."

Dr. Norman Paskin, Director of the International DOI Foundation, said: "We are delighted to welcome this group of leading libraries, and to have their support for our work on a persistent and extensible identification and metadata infrastructure for intellectual property. Our recent work with DOI applications and services will be of particular interest to the library community."

Further information:
- International DOI Foundation
- The British Library
- Die Deutsche Bibliothek
- Koninklijke Bibliotheek
- IFLA
- IPA

Press contacts:
Norman Paskin International DOI Foundation: n.paskin@doi.org
Johan Steenbakkers, Koninklijke Bibliotheek: johan.steenbakkers@kb.nl

Annex 3 - Work Programme 2002–2003
(draft version 0.4, March 2003)

Role of the Committee
The *Committee on digital issues* was established by the Conference of Directors of National Libraries (CDNL) to promote concerted actions for the benefit of core national library tasks in the digital environment.

The Committee was established in August 2001, as a merger of two existing CDNL working groups:
1. The *CDNL committee on digital preservation* was established at the CDNL meeting in Jerusalem (August 2000). It consisted of three members: Jan Fullerton (NLA), Winston Tabb (LC) and Wim van Drimmelen (KB) as chair. During 2001, the committee initiated the drafting of a UNESCO Resolution on Digital Preservation and undertook the necessary measures for the adoption of the Resolution at the UNESCO Conference in Paris in October 2001.
2. The *CDNL Task Force on persistent identifiers*, chaired by Winston Tabb (LC), was established earlier to exchange information and to identify requirements for persistent naming from both national and global perspectives. In this context, the Helsinki University Library of Finland drafted an informational RFC on 'Using National Bibliography Numbers as URNs', which was submitted to the Internet standardisation body last year.

The name given to the *Committee on Digital Issues (CDI)* is suitably vague and neutral to encompass all digital library issues - but the Committee has expressed the need to define and scope its own work programme and to prioritise the issues it wants to tackle.

CDI - Work Programme
It was decided to start with a 2-year work programme that will address the following three issues:
- Digital Preservation
- Bibliographic Standards for Access
- Deposit Agreements (legal/voluntary)

Work Method and Procedures
- The CDI - Work Programme 2002-2003 will be co-ordinated by Johan Steenbakkers (KB).
- For each of the three issues in the Work Programme a Working Group is installed with one co-ordinating member (see tables below).
- The Working Group members are experts assigned by a member institution of the Committee. External members may be invited on grounds of their expertise.

Scope Work Programme
The common interests of national libraries delimit the scope of the Work Programme. The issue addressed by each Work Group relates to a core task of national libraries.

Reporting to CDNL
The secretary of the Committee Gerard van Trier (KB) will write up a yearly report about the Committee's work and achievements, to be submitted to the annual CDNL meeting.

Communication and Dissemination
- The Committee communicates through an email discussion list.
- The Committee will disseminate information about its work programme and communicate results through a special Home Page on the PADI website.
- Internal documents that are not fit for public dissemination will be put on the website in a password protected area.

Work Group Digital Preservation (WG-DP)
(WG-DP Co-ordinator: Johan Steenbakkers)

Activities	Results	Timeframe	Origin	Goal
1.UNESCO Resolution	UNESCO Resolution adopted	Oct 2000 – Oct 2001	NEDLIB project	Awareness raising
2.Contribute to UNESCO Memory of the World Project: Preserving our digital heritage.	UNESCO Charter	2002-2003		
3.Research & Standardisation	Section on Digital Preservation Research in the PADI website	Aug 2001 – Aug 2002	NEDLIB project	promote collaborative research
	International Collaborative Research Initiative	2002 – 2003		

Experts	Email	Library		
Johan Steenbakkers	Johan.steenbakkers@kb.nl	KB		
Helen Shenton		BL		
Deborah Woodyard		BL		
Ute Schwens		DDB		
Hans Liegmann		DDB		
Jukka Kervinen		HUL		
Marko Tenkanen		HUL		
Mark Roosa		LoC		
Colin Webb	mroo@loc.gov	NLA		
Fay Hjartarson		NLC		
Alison Bullock		NLC		
Bill Newman		NLC		

Work Group Bibliographic Standards for Access (WG-BSA)
(WG-BSA Co-ordinator: Sally McCallum)

Activities	Results	Timeframe	Origin	Goal
1.Overview of current practices and tools	Section on Persistent Identifiers in the PADI website	Aug 2001 - Aug 2002	CDNL Task Force on PI	promote common solutions
Experts	**Email**	**Library**		
Sally McCallum Robert Smith Kathrin Schröder Renate Gömpel Marit Olander Margaret Philips Marg Stewart Fay Hjartarson		LoC BL DDB DDB HUL NLA NLC NLC		

Work Group Deposit Agreements (DA)
(WG-DA Co-ordinator: Pamela Gatenby)

Activities	Results	Timeframe	Origin	Goal
1.Promote adoption of the CENL/FEP codes of practice at the int'l level	CDNL/IPA Statement on deposit code of practice	2002-2003	new	Promote common understanding
2.Overview of deposit agreements concerning digital material	Section on Deposit Agreements in the PADI website	Aug 2001 - Aug 2002	new	best practices
Experts	**Email**	**Library**		
Pamela Gatenby John Byford Ute Schwens Johan Steenbakkers Gerard van Trier Jani Stenvall Nancy Davenport Ingrid Parent Libby Martin	Pgatenby@nla.gov.au	NLA BL DDB KB KB HUL LoC NLC NLC		

Annex 4 - PATCH proposal, summary

PATCH - Creating the 'Permanent Access Toolbox for digital Cultural Heritage'
Proposal for an Integrated Project within the 6th Framework Programme of the EC, April 2003

Digital information at risk
The information we use at home and work is increasingly digital. Computers have become an integral part of our daily lives and it is now hard to believe that the Internet has only been in existence for a few years. Nowadays we depend heavily on digital information in a wide variety of forms including text, images, sound, video, as well as, combinations of these different media types. At the same rate at which our world is becoming digital, our information is threatened. New types and versions of computer applications and file formats supersede each other, making our recorded digital information inaccessible.

Quest for persistence
Memory institutions, as the custodians of our cultural heritage, contend with a growing quantity of digital documents. These institutions have the same mission with both analogue and digital materials, which is to make the items available over the long-term. However, they are confronted with the issue of limited durability of digital items and are forced to look for solutions to the digital preservation problem. ICT companies have only recently become aware of the relatively short-term accessibility of digital objects. The current generation of archival systems have been designed to preserve digital information for the long term. Still to be resolved is how to access this stored information: how can we render digital information and view/listen to it, now and in the future?

Integrating the effort in PATCH
A group of national libraries and archives, universities, research institutions and ICT companies have joined forces to build tools to provide permanent access to stored digital objects. All of these organisations have had experience in archiving digital information and have also started research in several digital preservation areas, including development of rendering solutions. To avoid duplicate efforts, to benefit from each others experiences, and to design, build and test various potential solutions, these organisations wish to work together in a project called PATCH: Permanent Access Toolbox for Digital Cultural Heritage.

PATCH and the PATbox
The PATCH partners will create a technological framework (the PATbox) to promote continuous development of solutions for permanent access. Various tools for permanent access will be built and tested in a variety of environments (archives, libraries, and scientific institutions). During the project the tools will be compared, general guidelines will be drawn up and interoperability will be reviewed. PATCH will also try to induce a change in the way in which the ICT sector designs systems and software. This change requires that persistence of digital information is a design criterion for systems, rather than an inevitable problem for which late stage, makeshift measures have to be provided. If we do not act now an increasingly large quantity of digital information will be lost forever.

Overview of the PATCH Consortium

1	KB	Koninklijke Bibliotheek	**Project co-ordinator** & WP3	The Netherlands
2	BL	The British Library	WP 1 leader	United Kingdom
3	NA	UK National Archives	WP 2 leader	United Kingdom
4	CNES	Centre National d'Etudes Spatiales	WP 4 leader	France
5	BNF	Bibliothèque National de France	WP 5 leader	France
6	LU	University of Leeds	WP 6 leader	United Kingdom
7	DPC	Digital Preservation Coalition	WP 7 leader	United Kingdom
8	IBM	IBM-Nederland	partner	The Netherlands
9	DDB	Die Deutsche Bibliothek	partner	Germany
10	UKOLN	University of Bath (UKOLN)	partner	United Kingdom
11	BTUD	Bibliotheek Technische Universiteit Delft	partner	The Netherlands
12	NANETH	Nationaal Archief	partner	The Netherlands
13	KBD	Det Kongelige Bibliotek	partner	Denmark
14	SBD	Statsbiblioteket	partner	Denmark
15	KBS	Schweizerische Landesbibliothek	partner	Switzerland
17	SAD	Statens Arkiver	partner	Denmark

Potential contributors to PATCH (including subcontractors)

RAND-Europe	The Netherlands
Tessella	United Kingdom
ERPANET	Europe
CENL (Conference of European National Librarians)	Europe
ICA (International Council on Archives)	World-wide
CDNL (Conference of Directors of National Libraries)	World-wide
NLA (National Library of Australia)	Australia
LoC (Library of Congress)	USA