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DPC / PADI What's new in digital preservation

No. 15 (December 2006 - March 2007)

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This is a summary of selected recent activity in the field of digital preservation compiled from the Preserving Access to Digital Information ([PADI](#)) Gateway and the [digital-preservation](#) and [padiforum-l](#) mailing lists. Additional or related items of interest may also be included.

Contents:

1. [News from organisations and initiatives](#)

- 1.1 [Digital Preservation Coalition \(DPC\) \(UK\)](#)
- 1.2 [Digital Curation Centre \(UK\)](#)
- 1.3 [JISC \(UK\)](#)
- 1.4 [PLANETS](#)
- 1.5 [nestor \(Network of Expertise in Long-Term Storage of Digital Resources\)](#)
- 1.6 [National Library of the Netherlands \(Koninklijke Bibliotheek\)](#)
- 1.7 [CASPAR](#)

2. [Specific themes](#)

- 2.1 [Copyright](#)
- 2.2 [Standards](#)
- 2.3 [Costs, value and business models](#)
- 2.4 [Research data and infrastructure](#)
- 2.5 [Repository certification](#)
- 2.6 [Institutional repositories](#)
- 2.7 [E-journal archives](#)
- 2.8 [Electronic Records Management](#)
- 2.9 [Web archiving](#)
- 2.10 [Preservation metadata](#)
- 2.11 [Persistent Identifiers](#)

3. [Other publications](#)

4. [Events](#)

- 4.1 [Recent events](#)
- 4.2 [Current and forthcoming events](#)
- 4.3 [Digital Preservation Training Events](#) – **NEW**

1. News from organisations and initiatives

1.1 Digital Preservation Coalition (DPC)

The DPC has recently published the sixth interview on DPC member projects, this time covering the East of England Digital Preservation Regional Pilot Project (DARP) and its report.

The interview highlights a pilot study carried out between the UK Data Archive, a DPC member and a number of local regional archives, which looked at the feasibility of reading a range of electronic materials that the local archives provided. The report also looked at the costs for preservation and comes up with two costing models.

The interview is available via the DPC Web site:

Semple, Najla. (2007). East of England Digital Preservation Regional Pilot Project: [an Interview with Hilary Beedham]. Retrieved 18 April 2007 from: <http://www.dpconline.org/graphics/join/darp.html>

The project report is available from the UK Data Archive Web site:

Report of the East of England Digital Preservation Regional Pilot Project. MLA East of England and East of England Regional Archive Council, June 2006. Retrieved 18 April 2007 from: <http://www.data-archive.ac.uk/news/publications/darp2006.pdf>

1.2 Digital Curation Centre (DCC)

The Digital Curation Centre (DCC) and Digital Preservation Europe (DPE) have recently announced their new toolkit, the Digital Repository Audit Method Based on Risk Assessment (DRAMBORA). This resource builds on previous work on criteria for Trustworthy Digital Repositories. DRAMBORA assists repository administrators in assessing their own repositories and can be used by a broad range of repositories. The tool can be downloaded from the DRAMBORA Web site.

DRAMBORA: Digital Repository Audit Method Based On Risk Assessment. DRAMBORA Consortium, 1 March 2007. Retrieved 18 April 2007 from: <http://www.repositoryaudit.eu/>

There are also three accompanying training sessions to assist those who want to implement the tool. Details of these events and a full press release can be found on the DCC website. Retrieved 18 April 2007 from: <http://www.dcc.ac.uk/news/?pr=1173171600>

The DCC has also published several new resources on their Web site. One new instalment on 'Appraisal and Selection' has been added to the Digital Curation Manual (added 30 January 2007). Selection of resources is a vital element of the

digital life-cycle and this paper will assist curators to consider factors to be taken into account when selecting data to preserve.

There have also been two additions to the Standards Watch series both of which follow on from the first standards paper about metadata standards. *Using Metadata Standards* explores the types of metadata standards and how to implement them and the *PREMIS Data Dictionary* paper clarifies the PREMIS standard and gives the reader related links to assist in implementation.

Digital Curation Manual:

Harvey, Ross (2007) *Instalment on "Appraisal and Selection"*, Digital Curation Centre. Retrieved 18 April 2007 from:
<http://www.dcc.ac.uk/resource/curation-manual/chapters/appraisal-and-selection/>

Standards watch paper:

Higgins, Sarah (2007). *Standards Watch 2: Using Metadata Standards*. Retrieved 18 April 2007 from: <http://www.dcc.ac.uk/resource/standards-watch/using-metadata-standards/>

Higgins, Sarah (2007). *Standards Watch 3: PREMIS Data Dictionary*. Retrieved 18 April 2007 from: <http://www.dcc.ac.uk/resource/standards-watch/premis-data-dictionary/>

1.3 JISC

JISC have recently funded four more digital preservation related projects under the April 2006 Capital Call. These are:

- **Complex Archive Ingest for Repository Objects [CAIRO]**. This project will develop an open source tool for ingesting complex collections of born-digital materials into a preservation repository, with basic descriptive, preservation and relationship metadata. The tool will be tested on personal digital collections already accessioned by the partner institutions. More detail is available at:
http://www.jisc.ac.uk/whatwedo/programmes/programme_rep_pres/cairo.aspx
- **Data Exchange Tools and Conversion Utilities [DExT]**. This project will explore the feasibility of developing data exchange models and data conversion tools for primary research data collected in the course of empirical research. It will develop, refine and test models for data exchange for both survey data and qualitative research data based on XML/RDF schemas and will develop tools for data import and export. More detail is available at:
http://www.jisc.ac.uk/whatwedo/programmes/programme_rep_pres/dext.aspx
- **LIFE2**. LIFE2 will build on the original LIFE project by establishing the economic robustness of its generic lifecycle and preservation formulae

through further testing using case studies. More detail on LIFE2 is noted in the *Costs, values and business models* section, below, or is available at: http://www.jisc.ac.uk/whatwedo/programmes/programme_rep_pres/life2.aspx

- **Investigating the Significant Properties of Electronic Content over Time [InSPECT].** InSPECT will further develop the concept of 'significant properties' of digital objects, analysing a range of digital object types to develop a generalised methodology for determining their significant properties. It will also investigate the effectiveness of various preservation approaches in maintaining significant properties over time, and will assess tools used for format migration and tools to aid assessment of significant properties. More detail is available at: http://www.jisc.ac.uk/whatwedo/programmes/programme_rep_pres/inspect.aspx

As a complement to the InSPECT project, JISC have also recently invited proposals for four separate studies "to identify and analyse the significant properties of four different types of digital objects for digital preservation purposes: e-learning objects, software, vector images and moving images." The studies will develop models for expressing significant properties and propose standard ways of expressing these via templates.

The invitation for proposals, retrieved 18 April 2007, is available at: http://www.jisc.ac.uk/fundingopportunities/funding_calls/2007/03/significant_properties_itt.aspx

1.4 PLANETS – Digital Preservation Research and Technology

The Planets project (see <http://www.planets-project.eu/>), which brings together European National Libraries and Archives, leading research institutions and technology companies for digital preservation research, recently announced the sub-projects to be undertaken during its four-year duration. These are:

- **Preservation Planning:** assisting organisations develop and carry out their own preservation plans.
- **Preservation Characterisation:** by developing a standard for describing the significant properties of a digital object, it will allow future tools to extract those properties through use of an Extraction Language.
- **Preservation Action:** using appropriate tools to ensure long-term preservation of digital content.
- **Interoperability framework:** this provides the infrastructure to seamlessly integrate each of the tools created by the other sub projects.
- **Testbed:** the creation of a 'preservation laboratory' for the evaluation of tools and resources.
- **Dissemination and Take-up:** as Planets creates outputs it will have to disseminate and carry out training to put them to use. The wider aim is to create a market for tools and services.

Planets has also published its first bi-annual newsletter, which describes these sub-projects in more detail. Each issue of the newsletter will also be accompanied by a Planets partner highlight.

PLANETS (2007). *Planets Newsletter*. Issue 1, March 2007. Retrieved 18 April 2007 from: <http://www.planets-project.eu/newsletters/PlanetsNewsletterIssue1.pdf>

1.5 nestor (Network of Expertise in Long-Term Storage of Digital Resources)

nestor has announced that it has received funding for a second phase (nestor II), covering 2006-2009. This second phase includes an expansion of the nestor aims and tasks, including interlinking in the areas of eScience, grid computing, training, and the long-term preservation of digital resources. Another task, to be carried out jointly at a national level, is standardisation.

Two new working groups have also been established in this second phase:

- **WG 1: Standards for metadata, transfer of objects to digital repositories and object access.** Standards are a crucial means of achieving interoperability and trust. This working group will establish content standards within the long-term preservation competence network. Various communities and their interests will be taken into account, and existing approaches and solutions will be critically examined.
- **WG 2: Interlinking of eScience and long-term preservation.** eScience – collaborative science conducted on a distributed basis, enabled by a modern infrastructure, such as grid technology – requires special solutions for long-term preservation due to the large quantity of data and major technical changes. However, the technology could also hold great potential for the implementation of long-term preservation systems. This working group's task is to sketch out the opportunities of this new field, including the 'gridification' of archive systems, and to draw up a roadmap for its exploitation.

The previous issue of *What's New* reported the release of the German version of the *Catalogue of Criteria for Trusted Repositories*. An English version of this publication is now available. The catalogue identifies criteria to facilitate the trustworthiness of digital repositories, and is part of a larger push to standardise repository certification both nationally and internationally.

Catalogue of Criteria for Trusted Digital Repositories. Version 1. (Draft for public comment.) nestor Working Group, Trusted Repositories – Certification. Retrieved 18 April 2007 from: <http://edoc.hu-berlin.de/series/nestor-materialien/8/PDF/8.pdf>

nestor have also just published, in German, version 0.1 of a handbook and encyclopaedia for digital preservation:

nestor Handbuch: Eine kleine Enzyklopädie der digitalen Langzeitarchivierung. Version 0.1. nestor, March 2007. Retrieved 18 April

2007 from: http://nestor.sub.uni-goettingen.de/handbuch/nestor-Handbuch_01.pdf

More news is available from the nestor Web site via the latest nestor newsletter:

nestor Newsletter 10/2007 [29. January 2007]. Retrieved 18 April 2007 from: <http://nestor.sub.uni-goettingen.de/newsletter/index.php?lang=en>

1.6 National Library of the Netherlands (Koninklijke Bibliotheek)

The Koninklijke Bibliotheek (KB) and the National Archives of the Netherlands recently held a meeting to look at different approaches to emulation, following on from a project initiated in 2005 to develop a modular hardware emulator for digital preservation. The meeting covered topics such as future user aspects, long-term platform independency and how to create a distributed service that will offer access through emulation. Participants at the meeting then endorsed a statement concerning the use of emulation for digital preservation purposes. The principal message from the statement is that emulation is a viable preservation strategy that offers a number of unique advantages.

The statement and presentations from the meeting, retrieved 18 April 2007, are available at: http://www.kb.nl/hrd/dd/dd_projecten/projecten_emulatie-eem-en.html

More information on this approach to emulation is available on the KB and Digitale Duurzaamheid Web sites:

Koninklijke Bibliotheek (retrieved 18 April 2007):
http://www.kb.nl/hrd/dd/dd_projecten/projecten_emulatie-en.html

Digitale Duurzaamheid (retrieved 18 April 2007):
<http://www.digitaleduurzaamheid.nl/index.cfm?paginakeuze=355>

In November 2006, the KB launched its DARE-depot. This digital repository is part of the KB's e-Depot and contains all scientific publications that are stored in the Dutch DARE repositories at university libraries. The e-Depot ensures long-term curation and permanent access to these records of science. The DARE repositories hold publications by top national academics in the 'Cream of Science' collection and doctoral theses in the 'Promise of Science' collection.

Access to the repository is available via the DAREnet Web site, retrieved 18 April 2007 from: <http://www.darenet.nl/en/page/language.view/search.page>

1.7 CASPAR (Cultural, Artistic and Scientific knowledge for Preservation, Access and Retrieval)

The CASPAR project has released the first instalment of User Requirements and

Scenario Specifications for CASPAR components. Requirements have been gathered across three domains: the science domain, the arts domain and the cultural heritage domain, with additional common requirements identified across all three. Requirements are based on analyses of detailed questionnaires and interviews which were undertaken to:

- “examine a number of datasets in detail, identifying, as far as possible, all types of information implicitly or explicitly used by knowledgeable users to extract usable information from bit sequences.”
- “identify a number of issues, requirements and testbed scenarios covering, as far as possible, all aspects of changes which might affect the preservability of the information encoded in bit sequences.”

The first instalment is available from the CASPAR Web site.

D4101 User Requirements and Scenario Specifications, CASPAR-D4101-SCEN-0101-1_0. CASPAR, 21 December 2006. Retrieved 18 April 2007 from: <http://www.casparpreserves.eu/publications/deliverables>

2. Specific themes

2.1 Copyright

In December 2005, the UK Chancellor of the Exchequer asked Andrew Gowers to conduct an independent review to examine the UK Intellectual Property Framework. After an extensive period of consultation including submissions of evidence, the final report of the Review was published on 6 December 2006. Respondents were asked to comment on a range of general and specific intellectual property issues, and to highlight other issues for the Review to consider. One of the principal recommendations from the report was that a reform of the copyright law in the UK is needed in order that organizations can use and deliver digital content appropriately. The final report of the Gowers Review of Intellectual Property is available on the Review Web site:

Gowers Review of Intellectual Property. ISBN 978-0-11-84083-9. London: HM Treasury, 6 December 2006. Retrieved 18 April 2007 from: <http://www.hm-treasury.gov.uk/gowers/>

A new handbook on copyright for libraries was published in December 2006. The *eIFL Handbook on Copyright and Related Issues for Libraries* covers a wide range of legal topics integral to library management, both in Europe and the US, such as orphaned works, reproduction rights, copyright in the public domain and creative commons. It clarifies how copyright law is applicable within libraries and how different licences can affect the management and delivery of electronic resources. Each chapter includes a section for how these issues apply in a practical environment.

Handbook on Copyright and Related Issues for Libraries. Electronic Information for Libraries (eIFL), December 2006. Retrieved 18 April 2007 from: <http://www.eifl.net/cps/sections/services/eifl-ip/issues/eifl-handbook-on>

2.2 Standards

JISC has recently published a Technology Watch Report on Web 2.0 as part of their Technology and Standards Watch series. The technologies comprising Web 2.0 are playing an increasing role in the way we use the web, and this report describes them and, in particular, how they might impact on the UK HE/FE sector. The report argues that by separating out the discussion of Web technologies (ongoing Web development overseen by the W3C) from the more recent applications and services (social software), and by understanding the manifestations and adoption of these services (the 'big ideas'), decision makers will find it easier to understand and act on the strategic implications of 'Web 2.0'. The full report can be downloaded from the JISC website.

Anderson, P. (2007). *What is Web 2.0? Ideas, technologies and implications for education*. JISC Technology and Standards Watch. Retrieved 18 April 2007 from:
http://www.jisc.ac.uk/whatwedo/services/services_techwatch/techwatch/techwatch_ic_reports2005_published.aspx

2.3 Costs, value and business models

The Joint Information Systems Committee [JISC] has funded a second phase of the LIFE Project, which began on 26 February 2007. LIFE2 is led by UCL and the British Library and is tasked with developing an effective methodology for planning and costing digital preservation activities. LIFE2 will build on the original LIFE project by establishing the economic robustness of its generic Lifecycle and Preservation formulae; will further test the models with a wider range of Case Studies; and will pull the threads together with a final report, new costing tools and an end-of project conference.

The new Case Studies will include analysis of the lifecycles and costs in the areas of:

- institutional repositories, where LIFE2 will be working with the SHERPA LEAP consortium
- institutional repositories that utilise preservation services, where SHERPA DP will be providing the basis for analysing the costs of a centralised preservation model
- primary data preservation, where the Medical Research Council will be enabling analysis of a data collection managed for 20 years in digital form
- digitisation projects, where the British Library will be working towards more effective tools for planning for the long term preservation and management of digitised materials

LIFE2 will also be working closely with early adopters of the LIFE methodology, including a consortium in Denmark consisting of The Royal Library of Denmark,

State and University Library and Danish State Archives.

More information is available from the LIFE website. Retrieved 18 April 2007 from:
<http://www.ucl.ac.uk/life/lifeproject>

2.4 Research data and infrastructure

In March, the US National Science Foundation Cyberinfrastructure Council released a report on its vision of cyberinfrastructure for 21st century discovery. The vision focuses on the 5-year time frame of 2006 to 2010 and lays out strategies for the "development and support of a comprehensive cyberinfrastructure essential to 21st century advances in science and engineering research and education."

Comprising five chapters, the vision covers:

- the mission, principles, goals and strategies for cyberinfrastructure development
- the creation of a high performance computing environment for petascale science and engineering
- the "opportunities and challenges of a data-intensive world", including the need for data stewardship, curation and long-term access, and the creation of a coherent data cyberinfrastructure and a national digital data framework
- support for the creation and sustaining of effective virtual organisations in distributed collaborative environments
- support for building the capacity to create and use cyberinfrastructure and to enhance learning.

The report is available from the National Science Foundation Web site.

National Science Foundation Cyberinfrastructure Council (2007).
Cyberinfrastructure Vision for 21st Century Discovery. National Science Foundation, March 2007. Retrieved 18 April 2007 from:
<http://www.nsf.gov/pubs/2007/nsf0728/index.jsp>

In the UK, a recently published report, *Developing the UK's e-infrastructure*, examines the needs of researchers in the digital age. The UK's science and research base requires a solid e-infrastructure, and this report, published by the Office of Science and Innovation, helps to define its future development.

The report was produced by the Office of Science and Innovation e-Infrastructure Working Group, and brings together the findings from sub-groups across six distinct but interrelated areas:

- Data and information creation
- Preservation and curation
- Search and navigation

- Virtual research communities
- Networks, compute and data storage
- AAA (authentication, authorisation and accounting), middleware and DRM (digital rights management)

As well as the overarching report, each of the sub-groups has also produced a report, including a report on preservation and curation by Neil Beagrie, which puts forward some key recommendations for tackling the preservation of research material at a national level. The reports are available from the Web site of the UK National e-Science Centre.

Developing the UK's e-infrastructure. Retrieved 18 April 2007 from:

<http://www.nesc.ac.uk/documents/OSI/index.html>

Beagrie, N. (2007). *E-Infrastructure strategy for research: final report from the OSI Preservation and Curation Working Group.* Retrieved 18 April 2007 from: <http://www.nesc.ac.uk/documents/OSI/preservation.pdf>

In an address to the Conference on Scientific Publishing in the European Research Area: "Access, Dissemination and Preservation in the Digital Age", held in Brussels in February, Viviane Reding, Commissioner for Information Society and Media, called for more debate on access to and better use of research data, and highlighted the need for clear strategies and a common approach to digital preservation at a European Level. Responsibilities for preservation are not yet clearly defined, and Member States are at different stages of infrastructure development. Ms Reding notes that the Commission will take an active role to "tackle the issue of digital preservation, and to arrive at a shared vision in Europe for scientific information in the digital age."

Reding, V. (2007) "Scientific Information in the Digital Age: How accessible should publicly funded research be?" from the proceedings of the *Conference on Scientific Publishing in the European Research Area: Access, Dissemination and Preservation in the Digital Age.* Retrieved 18 April 2007 from:

http://ec.europa.eu/commission_barroso/reding/docs/speeches/scientific_info_en.pdf

2.5 Repository certification

Following on from the work carried out by the RLG and the US National Archives and Records Administration [NARA] to address digital repository certification, the *Audit Checklist for the Certification of Trusted Digital Repositories* has now been updated to the *Trustworthy Repositories Audit and Certification Checklist*.

This new version summarizes the results of testing the original audit checklist across a number of different domains by organizations both in the US and in Europe, such as the Center for Research Libraries (CRL), the Digital Curation Centre (DCC), and nestor, and incorporates new ideas, tools and techniques. The revised checklist is available from the CRL Web site.

Trustworthy Repositories Audit and Certification: Criteria and Checklist. The Center for Research Libraries, February 2007. Retrieved 18 April 2007 from: <http://www.crl.edu/PDF/trac.pdf>

The Consultative Committee for Space Data Systems has announced the formation of a 'Birds of a Feather' group to assess the level of input an ISO standardisation of the Repository Audit and Certification process [RAC] will require. The creation of the standard will be similar to that of the OAIS process and will be subject to full international review. A Wiki has been set up to document this ongoing process, retrieved 18 April 2007 from: <http://wiki.digitalrepositoryauditandcertification.org/bin/view>

The first 'Birds of a Feather' meeting was held in Colorado Springs on 19 January 2007 and notes from the meeting (retrieved 18 April 2007) are available via the Wiki: <http://wiki.digitalrepositoryauditandcertification.org/bin/view/Main/BoF20070119>.

As noted above, the nestor Working Group on Trusted Repositories recently published the English version of the *Catalogue of Criteria for Trusted Digital Repositories*, retrieved 18 April 2007 from: <http://edoc.hu-berlin.de/series/nestor-materialien/8/PDF/8.pdf>

An article by Kaczmarek *et al.* in the December 2006 issue of *D-Lib Magazine* describes the work to date of the NDIIPP-sponsored ECHO DEpositary project, which is "proposing a framework of evaluation for repository software applications based on the *Audit Checklist* in conjunction with a common software evaluation scoring methodology."

Kaczmarek, J., Hswe, P., Eke, J. and Habing, T. J. (2006). "Using the 'Audit Checklist for the Certification of a Trusted Digital Repository' as a Framework for Evaluating Repository Software Applications: a Progress Report," *D-Lib Magazine*, 12(12), December 2006. Retrieved 18 April 2007 from: <http://www.dlib.org/dlib/december06/kaczmarek/12kaczmarek.html>

2.6 Institutional repositories

A recently published paper in the series of CLIR reports looks at institutional repositories [IRs] in the United States. In the report *Census of Institutional Repositories in the United States – MIRACLE Project Research Findings*, the study surveyed a wide range of higher education libraries including those institutions which had not yet embarked on establishing their own repositories. Only 10.8% of those surveyed had implemented an operational IR at their institution. The survey examines the scope of these IRs and the staff involved in running them. The study also reviews those institutions yet to establish repositories, including the likelihood that they may establish one in the future.

Markey, K; Young, S; St Jean, B; Kim, J; and Yakel, E (2007). *Census of Institutional Repositories in the United States – MIRACLE Project Research Findings*. Council on Library and Information Resources, February 2007. Retrieved 18 April 2007 from: <http://www.clir.org/pubs/reports/pub140/contents.html>

A recent article in the March/April issue of *D-Lib Magazine* reports on a project to evaluate usage in institutional repositories. The article looks at Cornell's use of

DSpace and its use and non-use within the academic community. The article compares results with that of other institutions using DSpace.

Davis, P & Connolly, M (2007) "Institutional Repositories – evaluating the reasons for non-use of Cornell University's installation of DSpace," *D-Lib Magazine*, 13(3/4), March/April 2007. Retrieved 18 April 2007 from:
<http://www.dlib.org/dlib/march07/davis/03davis.html>

A second edition of the *DINI-certificate: Document and Publication Services* has been released. DINI, Deutsche Initiative für Netzwerkinformation [German Initiative for Network Information] has initiated a 'Network of Document and Publication Services', which complements the commercial publishing organisations. The document clarifies how the network supports open-access publication, and shows how institutional repositories can support scholars to make pre- and post-prints of their publications freely available.

DINI Certificate: Document and Publication Services 2007. Version 2.0
September 2006. Retrieved 18 April 2007 from:
<http://www.dini.de/documents/dini-zertifikat2007-en.pdf>

An article has been published recently about migrating e-prints to a Fez-base digital repository, based on Fedora. The article describes the experiences of moving metadata, full-text and multimedia into a single repository.

Weaver, Belinda (2007). *Migrating eprints.org data to a Fez repository*.
Retrieved 18 April 2007 from:
<http://espace.library.uq.edu.au/view.php?pid=UQ:12868>

2.7 E-Journal Archives

A JISC briefing paper on archiving and preservation of E-journals has become available. The briefing paper explains the main issues related to the preservation responsibility of e-journals and the differences between perpetual access, archiving and long-term preservation. It also looks at the role of legal deposit and institutional and open access repositories, and examines a number of currently available e-journal archiving options, including LOCKSS, CLOCKSS, Portico and PubMed Central. The briefing paper is available from the JISC website.

Jones, M. (2007). *E-Journals: Archiving and Preservation*, Briefing paper.
JISC, 2007. Retrieved 18 April 2007 from:
http://www.jisc.ac.uk/publications/publications/pub_ejournalspreservationbp

Parallel to the briefing paper, JISC recently commissioned a consultancy to review and analyse the CLIR e-journal Archiving Survey report from September 2006, which was mentioned in the previous issue of *What's New*. The objectives for the work were to review understand the findings of the survey and its impact for the UK education sector. The full report of the consultancy includes a set of high-level principles for e-journal archiving services designed to assist in assessing third party services, as well as a set of high-level principles for a national approach to e-journal archiving.

Jones, M (2007). *E-Journal Archiving : Review and Analysis of the CLIR*

Report "E-Journal Archiving Metes and Bounds : a Survey of the Landscape."
JISC, 16 February 2007. Retrieved 18 April 2007 from:
http://www.jisc.ac.uk/whatwedo/programmes/programme_preservation/ejournalarchiving

2.8 Electronic Records Management

Work on a second generation of the Model Requirements for Electronic Records Management specification has been announced: MoReq2. Cornwell Management Consultants plc has been awarded the contract to define the next generation of these requirements in MoReq2 which will become a standard for future electronic records management suppliers to use. Cornwell are also seeking volunteers to participate in the review process. The DLM forum will establish the testing procedures for this standard.

More information is available via both the DLM Web site and Cornwell Web site. A scoping report to MoReq2 is also available.

DLM Forum & MoReq2. DLM Forum, 2007. Retrieved 18 April 2007 from:
<http://dlmforum.typepad.com/>

MoReq2. Cornwell Management Consultants plc, 2007. Retrieved 18 April 2007 from: <http://www.moreq2.eu/>

DLM Forum Working Group for the development of MoReq (2006). *Scoping report for the development of the Model Requirements for the management of electronic records (MoReq2)*. DLM Forum, February 2006. Retrieved 18 April 2007 from:
<http://www.moreq2.eu/documents/MoReq2%20Scoping%20Report.pdf>

A German e-Government project, ArchiSafe, has developed a set of principles for the long-term retention of electronically signed documents. This archive system was primarily developed for legally protected federal documents, which are kept in an XML exchange format for retention for at least thirty years. The pilot is now a fully functioning system. Details of the project are available [in German only] from the ArchiSafe Web site. Addition of electronic signatures to the documents is carried out by the use of the ArchiSig System, developed in 2003 by a collaborative team of German institutions.

ArchiSafe. Retrieved 18 April 2007 from:
<http://www.archisafe.de/s/archisafe/index>

ArchiSig. Retrieved 18 April 2007 from:
<http://www.archisig.de/english/index.html>

2.9 Web Archiving

A recent article in *Ariadne* highlights the development of the Web Curator Tool (WCT), which was noted in the previous issue of *What's New*. Philip Beresford from the British Library describes the development of this new piece of software from the perspective of the UK Web Archiving Consortium. With development led by the

National Library of New Zealand, the tool was produced to aid all stages of harvesting Web sites for preservation, including harvesting, selection, description and a quality user interface.

Beresford, P. (2007). "Web Curator Tool", *Ariadne*, Issue 50, January 2007.
Retrieved 18 April 2007 from: <http://www.ariadne.ac.uk/issue50/beresford/>

A number of project documents have been made available on the Czech Culture 2000 project website. The project was led by the National Library of the Czech Republic, and its main aim was to create selection guidelines for web archiving as a best practice applicable in any (not only European) country. The project analysed existing methods of selection policy in North-Western Europe, North America, Australia and New Zealand, Asia (in particular Japan and China).

Another analysis focussed on software tools and workflows used for downloading and indexing the Internet resources to a digital archive in accordance with proposed selection policies. The project also tested a set of 120 websites (30 URLs - national domains chosen by each country) using adopted software tools (3 types of harvesters) and evaluated the harvesting results.

A new set of selection criteria has been put forward, based on the performed analyses and testing.

All results have been made available at the project Web site, retrieved 18 April 2007 from: <http://www.webarchiv.cz/culture-2000>

A print publication is available free of charge to complement these online reports, which can be ordered from the National Library of the Czech Republic: webarchiv@nkp.cz.nospam (Remove .nospam from address before sending.)

"Web Cultural Heritage : Culture 2000 project 25. 9. 2005 - 24. 9. 2006"
National Library of the Czech Republic (Publ.) Prague 2006, 30 p., 12 ill.
ISBN 80-7050-512-5

A call for papers for the 7th International Web Archiving Workshop has been announced. The Workshop will be held in conjunction with the ACM IEEE Joint Conference on Digital Libraries 2007, 17-23 Jun 2007 in Vancouver, Canada. More information, retrieved 18 April 2007, is available at: <http://www.iwaw.net/07/>

2.10 Preservation Metadata

Revision of the PREMIS Data Dictionary and XML schemas by the PREMIS Editorial Committee is under way. A set of proposed changes based on feedback and comments from implementers is under review, and additional comments will be sought on a range of proposals as the revision progresses. Those interested in participating in discussion should subscribe to the PREMIS Implementers' Group e-mail discussion list, which is accessible through the PREMIS Maintenance Activity Web site.

Library of Congress. (2006). *PREMIS Maintenance Activity and Editorial Committee*. Retrieved 18 April 2007 from: <http://www.loc.gov/standards/premis/ma.html>

PREMIS Implementers Group. Retrieved 18 April 2007 from:
<http://www.loc.gov/standards/premis/pig.html>

A recent report by Karen Coyle provides recommendations for expression of digital rights in the PREMIS data model, including specifying the terms and conditions for using the objects in a digital repository. Whereas the original model supported rights metadata for preservation only, this study, as part of the revision of the PREMIS Data Dictionary, looks at the need for access rights in the model. The author surveys the digital rights landscape and describes the different actions that repositories might have to take to deal with rights for digital objects.

Coyle, K. (2006). *Rights in the PREMIS Data Model: a Report for the Library of Congress*. Washington: Library of Congress, December 2006. Retrieved 18 April 2007 from: <http://www.loc.gov/standards/premis/Rights-in-the-PREMIS-Data-Model.pdf>

A paper on automated metadata extraction has been published as part of the Digital Curation Centre research programme. *Automating metadata extraction* looks at the extraction of metadata from PDF files, suggests that the best way forward is genre classification, and details how to describe the document within five different genres.

Y. Kim and S. Ross, 2006, "Automating Metadata Extraction: Genre Classification" *Proceedings of the UK e-Science All Hands Meeting 2006, 18 - 21st September, Nottingham UK, NeSC*, ISBN 0-9553988-0-0. Retrieved 18 April 2007 from:
<http://www.allhands.org.uk/2006/proceedings/papers/663.pdf>

2.11 Persistent identifiers

A recent article by Hans-Werner Hilse and Jochen Kothe describes a number of different URL resolver schemas such as DOIs, PURLs and OpenURL. The report aims to assist administrators to choose an optimum schema within their organisation. A number of different tasks and commitments are involved in supporting a schema and this article clarifies what these are and how best to approach each scenario.

Hilse, H. and Kothe, J. (2006). *Implementing Persistent Identifier: Overview of concepts, guidelines and recommendations*. ISBN 90-6984-508-3. Consortium of European Research Libraries and European Commission on Preservation and Access, 2006. Retrieved 18 April 2007 from : <http://nbn-resolving.de/urn:nbn:de:gbv:7-isbn-90-6984-508-3-8>

Copies can be ordered from the ECPA Secretariat or through the ECPA website. The report is also available as a PDF file on each of the publishers' Web sites:

Consortium of European Research Libraries (retrieved 18 April 2007):
http://www.cerl.org/CERL/implementing_persistent_identifiers.htm

European Commission on Preservation and Access (retrieved 18 April 2007): <http://www.knaw.nl/CFdata/epic/ecpa.cfm#2732>

3. Other publications

An article in *Ariadne* outlines collection planning for born digital materials at the Wellcome Library. It discusses the Library's digital preservation plan, its donor/loan agreements, the challenge of technical metadata and the importance of archival practice. It highlights the different relationships and workflows for information and how the institute is engaging with digital material as part of the Library's three-year plan.

Hilton, C. & Thompson, D. (2007). "Collecting Born Digital Archives at the Wellcome Library", *Ariadne*, Issue 50, January 2007. Retrieved 18 April 2007 from: <http://www.ariadne.ac.uk/issue50/hilton-thompson/>

An article by Thomas Teper reports on findings of the ARL (Association of Research Libraries) Future of Preservation Task Force, which produced five recommendations on the direction of member preservation programs and the role of ARL.

Teper, T. (2007). "The Future of Preservation in ARL Libraries." *ARL Bimonthly Report*, no. 251 (April 2007), pages 9-11. Retrieved 18 April 2007 from: <http://www.arl.org/bm~doc/arlbr251preserv.pdf>

A new book on digital preservation, *Preserving Digital Information* by Henry Gladney has just been published. The book covers a range of digital preservation issues, from the need to carry out preservation tasks and the challenges that preservation presents, to describing information objects and digital content management practices.

Gladney, H. (2007). *Preserving Digital Information*. ISBN: 978-3-540-37886-0. Heidelberg: Springer-Verlag, 2007. Retrieved 18 April 2007 from: <http://www.springer.com/east/home/computer/database?SGWID=5-153-22-173677919-0>

A synopsis (retrieved 18 April 2007) is available at: <http://home.pacbell.net/hgladney/PDIf.pdf>

Henry Gladney also reviews the US NDIIPP program in the January/February 2007 issue of *D-Lib Magazine*:

Gladney, H. (2007). "Digital Preservation in a National Context: Questions and Views of an Outsider," *D-Lib Magazine*, 13(1/2), January/February 2007. Retrieved 18 April 2007 from: <http://www.dlib.org/dlib/january07/gladney/01gladney.html>

The first issue of the National Digital Archive of Datasets [NDAD] newsletter is now available. This new look newsletter highlights the latest dataset releases and developments at the archive, including ULCC's involvement in the UK Web Archiving Consortium.

Datasets News, Winter 2006/7. Retrieved 18 April 2007 from <http://www.ndad.nationalarchives.gov.uk/news/nl/>

4. Events

4.1 Recent events

2nd International Digital Curation Conference: Digital Data Curation in Practice, 21-22 November 2006, Hilton Glasgow Hotel, Glasgow, UK

Presentations and posters from the conference are available from the Digital Curation Centre Web site. Retrieved 18 April 2007 from:
<http://www.dcc.ac.uk/events/dcc-2006/>

Alexander Ball and Manjula Patel also provide an overview of the conference in a recent article.

Ball, A. & Patel, M. (2007). "2nd International DCC Conference 2006: Digital Data Curation in Practice," *Ariadne*, Issue 50, January 2007. Retrieved 18 April 2007 from: <http://www.ariadne.ac.uk/issue50/2-dcc-conf-rpt/>

Cultural Heritage On Line: the Challenge of Accessibility and Preservation, 14 - 16 December 2006, Florence, Italy

Presentations are available from the Fondazione website. Retrieved 18 April 2007 from: <http://www.rinascimento-digitale.it/indexEN.php?SEZ=399>

Alastair Dunning reports on the conference with regard to the preservation and accessibility of cultural heritage material:

Dunning, A. (2007). "Cultural Heritage Online: The Challenge of Accessibility and Preservation", *Ariadne*, Issue 50, January 2007. Retrieved 18 April 2007 from: <http://www.ariadne.ac.uk/issue50/rinascimento-digitale-rpt/>

Information Online 2007, 30 January - 1 February 2007, Sydney Convention & Exhibition Centre, Darling Harbour, Sydney, Australia

Conference papers are available from the Information Online website. Retrieved 18 April 2007 from: <http://www.information-online.com.au/index.php?pagename=Conference%20Planner>

OR07: 2nd Annual Open Repositories Conference, 23-26 January 2007, San Antonio, Texas, USA

The March/April 2007 issue of *D-Lib Magazine* includes a conference report on the 2nd Annual Open Repositories Conference:

Minton Morris, C. (2007). "Road Report: Second Annual Open Repositories Conference (OR07) in San Antonio," *D-Lib Magazine*, 13(3/4), March/April 2007. Retrieved 18 April 2007 from:
<http://www.dlib.org/dlib/march07/morris/03morris.html>

JISC Conference 2007, 13 March 2007, International Convention Centre, Birmingham, UK

Session commentaries and presentations are available from the JISC Web site.

Retrieved 18 April 2007 from:

http://www.jisc.ac.uk/events/2007/03/event_conf_0307.aspx

First International Workshop on Database Preservation (PresDB'07), 23 March 2007, National e-Science Centre, Edinburgh, UK

Presentations are available from the Workshop Web site. Retrieved 18 April 2007

from: <http://homepages.inf.ed.ac.uk/hmueller/presdb07/location.html>

JISC/BL/DPC Workshop: E-Journal Archiving and Preservation, 27 March 2007, British Library Conference Centre, London, UK

Presentations from the Workshop, retrieved 18 April 2007, are available at:

<http://www.dpconline.org/graphics/events/0703ejournalwkshop.html>

4.2 Current and Forthcoming events

April

Museums and the Web 2007. 11-14 April 2007, San Francisco, California (United States of America).

Retrieved 18 April 2007 from: <http://www.archimuse.com/mw2007>

CERN Workshop on Innovations in Scholarly Communication, 18-20 April 2007, CERN, Geneva, Switzerland.

Retrieved 18 April 2007 from: <http://oai5.web.cern.ch/oai5/>

DigCCurr2007: An International Symposium on Digital Curation "What Digital Curators Do and What They Need to Know?" 18-20 April 2007, Chapel Hill, North Carolina, USA.

Retrieved 18 April 2007 from:

<http://www.ils.unc.edu/digccurr2007/program.html>

The Challenge: Long-term Preservation. Strategies and Practice of European Partnerships, 20 April 2007, Frankfurt, Germany.

Retrieved 18 April 2007 from:

http://www.langzeitarchivierung.de/downloads/EU/Flyer_en.pdf

IFLA Core Activity on Preservation and Conservation International Symposium: From the production to the long-term preservation of digital objects: international experiences, 25-27 April 2007, National Library of France, Paris, France.

Retrieved 18 April 2007 from: <http://www.ifla.org/VI/4/conf/PAC-WS-April2007.htm>

May

Best Practices Exchange 2007: Libraries and Archives in the Digital Era, 2-4 May 2007, Chandler, Arizona, USA.

Retrieved 18 April 2007 from: <http://www.bpexchange.org/>

16th International World Wide Web Conference (WWW2007). 8-12 May 2007, Banff, Alberta, Canada.

Retrieved 18 April 2007 from: <http://www2007.org/>

IASSIST 2007. "Building Global Knowledge Communities with Open Data", 15-18 May 2007, Montreal, Canada.

Retrieved 18 April 2007 from: <http://www.edrs.mcgill.ca/IASSIST2007/>

IS&T Archiving Conference (Archiving 2007), 21-24 May 2007, Arlington, Virginia, USA. Retrieved 18 April 2007 from:

<http://www.imaging.org/conferences/archiving2007/>

LIBER Think Tank "The future value of the book as artefact and the future value of digital documentary heritage," 24-25 May 2007, Stockholm, Sweden. Retrieved 18 April 2007 from: [http://abm-](http://abm-centrum.se/ThinkTankPresentation.htm)

[centrum.se/ThinkTankPresentation.htm](http://abm-centrum.se/ThinkTankPresentation.htm)

June

Digital Humanities 2007. 2-8 June 2007, University of Illinois, Urbana-Champaign, Illinois, USA.

Retrieved 18 April 2007 from: <http://www.digitalhumanities.org/dh2007/>

ELPUB 2007, the 11th International Conference on Electronic Publishing, 13-15 June 2007, Vienna University of Technology, Vienna, Austria.

Retrieved 18 April 2007 from: <http://www.elpub.net/>

10th International Symposium of Electronic Theses and Dissertations : ETD 2007, 13-16 June 2007, Uppsala University, Uppsala, Sweden.

Retrieved 18 April 2007 from: <http://epc.ub.uu.se/etd2007/>

JCDL 2007: ACM IEEE Joint Conference on Digital Libraries 2007, 18-23 Jun 2007, Vancouver, British Columbia, Canada

Retrieved 18 April 2007 from: <http://www.jcdl2007.org/>

Data Dictionary for Preservation Metadata: PREMIS Tutorial, 21 June 2007, Library of Congress, Washington DC, USA.

Retrieved 18 April 2007 from: <http://www.loc.gov/standards/premis/premis-datadict-tutorial.html>

7th International Web Archiving Workshop, 23 June 2007, Vancouver, British Columbia, Canada.

Retrieved 18 April 2007 from: <http://www.iwaw.net/07/>

July

EVA 2007: Digital Imaging and the Electronic Arts, 11-13 July 2007, London, UK.

Retrieved 18 April 2007 from: http://www.eva-conferences.com/eva_london/2007

August

SOIMA 2007: Safeguarding sound and image collections (a training course), 6–31 August 2007, Rio de Janeiro, Belo Horizonte and São Paulo
Retrieved 18 April 2007 from:

http://www.iccrom.org/eng/01train_en/announce_en/2007_08SoimaBRA_en.shtml

World Library and Information Congress : 73rd IFLA General Conference and Council : Libraries for the Future : Progress, Development and Partnerships, 19-23 August, Durban, South Africa.

Retrieved 18 April 2007 from: <http://www.ifla.org/IV/ifla73/index.htm>

Dublin Core Conference 2007: International Conference on Dublin Core and Metadata Applications "Application Profiles: Theory and Practice", 27-31 August 2007, Singapore.

Retrieved 18 April 2007 from: <http://conferences.nlb.gov.sg/dc2007/>

Society of Archivists Annual Conference: "Differing Directions Challenging Communities", 28-31 August 2007. Belfast, Northern Ireland.

Retrieved 18 April 2007 from:

<http://www.archives.org.uk/thesociety/conference2007belfast.html>

September

11th European Conference on Research and Advanced Technology for Digital Libraries (ECDL 2007), 16-21 September 2007, Budapest, Hungary.

Retrieved 18 April 2007 from: <http://www.ecdl2007.org>

October

PV2007 "Ensuring the Long-Term Preservation and Value Adding to Scientific and Technical Data", 9-11 October 2007, Oberpfaffenhofen/Munich, Germany.

Retrieved 18 April 2007 from: <http://www.pv2007.dlr.de/index.htm>

International conference on Preservation of Digital Objects (iPRES 2007): "Digital Preservation: Sustainable Programs and Best Practice", 11-12 October 2007, Beijing, China. Call for Abstracts is now open.

Retrieved 18 April 2007 from: <http://ipres.las.ac.cn/index.jsp>

International Conference on Metadata and Semantics Research, 11-12 October 2007, Corfu, Greece.

Retrieved 18 April 2007 from: <http://www.mtsr.ionio.gr/>

November

European Conference on Architecture and Digital Archives: "Architecture in the digital age: a question of memory", 8-10 November 2007, Paris, France

Retrieved 18 April 2007 from: <http://www.architecturearchives.net>

December

ICADL 2007: 10th International Conference on Asian Digital Libraries – "Asian Digital libraries: Looking Back 10 Years and Forging New Frontiers",

10-13 December 2007, Hanoi, Vietnam.
Retrieved 18 April 2007 from: <http://icadl2007.vista.gov.vn/>

3rd International Digital Curation Conference: "Curating our Digital Scientific Heritage: a Global Collaborative Challenge". 12-13 December 2007, Renaissance Washington DC Hotel, Washington, USA.
Retrieved 18 April 2007 from: <http://www.dcc.ac.uk/events/dcc-2007/>

4.3 Digital Preservation Training Events

April

Tape Workshop on Management of Audiovisual Collections, 18-24 April 2007, Amsterdam, the Netherlands. The annual five-day course concentrates on training for the preservation and digitisation of audiovisual materials. The course will assist collection managers to develop their own policies.
Retrieved 18 April 2007 from: <http://www.tape-online.net/courses.html>

DPE Tutorial: Building Trust in Digital Repositories – Using the DRAMBORA Toolkit, 26 April 2007, London, UK. Three tutorials will be held in different locations [see below] to assist those who want to implement the DRAMBORA toolkit. The training events are of use to people who wish to make use of the resource, to design and develop their own digital repository systems.
Retrieved 18 April 2007 from: <http://www.dcc.ac.uk/events/drambora-london-2007/>

May

DPE Tutorial: Building Trust in Digital Repositories – Using the DRAMBORA Toolkit, 3 May 2007, The Hague, the Netherlands.
Retrieved 18 April 2007 from: <http://www.dcc.ac.uk/events/drambora-hague-2007/>

DPE Tutorial: Building Trust in Digital Repositories – Using the DRAMBORA Toolkit, 21 May 2007. IS&T Archiving Conference, Virginia, USA.
Retrieved 18 April 2007 from: <http://www.dcc.ac.uk/events/is&t-2007/>

Digital Futures, 21-25 May, London, UK. The five-day course is aimed at managers and other practitioners from the library, museum, heritage and cultural sectors looking to understand the strategic and management issues of developing digital resources from digitisation to delivery. Digital Futures will cover the following core areas: Planning and management; Fund raising and finance; Sustainability; Copyright; Metadata.
Retrieved 18 April 2007 from: <http://www.digitalconsultancy.net/digifutures/digireg.htm>

A comprehensive and frequently updated list of forthcoming events is available from the PADI Web site: <http://www.nla.gov.au/padi/format/event.html>

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