

## DL.org out & about!

### Editorial

This issue of the DL.org eNewsletter brings highlights from two Digital Library (DL) community events last December, where representatives of the project and its Working Groups showcased current outcomes and plans moving forward at the REPRISE Workshop during the 5<sup>th</sup> International Digital Curation Conference in London and the Cultural Heritage online conference in Florence.

Current DL.org achievements include a new, enhanced version of the DL Reference Model, V1.0, which can be downloaded from the website, and the State-of-the-Art Survey, which explores the current status in DL technology and research for interoperability and is available on the project's wiki:

[https://workinggroups.wiki.dlorg.eu/index.php/State\\_of\\_the\\_art](https://workinggroups.wiki.dlorg.eu/index.php/State_of_the_art)

One of the key DL.org initiatives in 2010 is the Summer School – *Training on DL Interoperability Perspectives*, 7-10 June 2010 with a Welcome Reception on Sunday 6 June in Tirrenia, near Pisa, which is featured in this issue. This training event is complemented by our on-line courses designed to foster new knowledge acquisition on core DL concepts and the Reference Model, outlined in this eNewsletter.

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### Event Report: DL.org at REPRISE Workshop, 2 December 2009, London

Global Digital Library infrastructures resulting from the federation and interoperation of local, national and international Digital Library Systems (DLS) and Digital Repositories (DR) will significantly advance cross-domain research through universal access to a broad spectrum of resources. However, interoperability is a complex, multi-perspective notion encompassing technological, legal and policy aspects and is very hard to achieve. DL.org is undertaking a comprehensive approach to interoperability in terms of the main concepts characterising DLs and DL systems: content, functionality, policy, quality, user and architecture.

The multi-perspective approach adopted by DL.org resonated at the REPRISE (Repository

Preservation Infrastructure) Workshop on 2 December 2009 during the 5th International Digital Curation Conference in London.

*"Responsibilities of trusted repositories embrace both technical and organisational aspects. This workshop discussed organisational requirements for technical infrastructure, and fostered discussion between the e-Infrastructure and curation communities,"* says Andreas Aschenbrenner, Goettingen University and co-chair of the Open Grid Forum's Digital Repositories Research Group (DR RG).



Kevin Ashley (pictured), head of Digital Archives Department at the London University Computer Centre and member of DL.org's Policy Working Group, explored organisational facets with a talk entitled "Audit, outsourcing and interoperability of preservation". The talk brought into sharp relief the broader perspectives of interoperability, moving beyond metadata, APIs and wire protocols to encompass policies, comparability and markets. Interoperability enables consumers and depositors alike to compare services and gauge value-add in terms of trustworthiness, security, and openness. Return on Investment (RoI) and the long-term usability of digital content are important factors particularly for funding agencies and collection holders.

External audits in standard forms and formal certification processes offer very important tools for DR assessment. Audit mechanisms cited during the talk include TRAC (Trustworthy Repositories Audit and Certification); DRAMBORA (Digital Repositories Audit Method Based on Risk Assessment); NESTOR (a network of expertise in long-term STORage - NESTOR Working Group on Trusted Repository Certification) and DINI (a German-led initiative for network information), as well as the Open Archive Information System (OAIS) reference model, approved as an ISO standard (ISO14721) and on which a full audit and certification of Digital Repositories can be based.

Key factors to keep firmly in mind range from trust in content retention over time, energy costs of preserving content and environmental audits to certification based on recognised standards. Interoperable policies need to address agreements between content providers and DR

holders with issues such as confidence and trust in transferability over time and between users firmly in mind. Outsourcing can play a role in terms of contracts, service level agreements (SLAs) and performance measures, where comparability as a driver towards interoperability to avoid or even design out customer lock-in.



**Members of DL.org Policy & Quality WGs.**

DL.org's Policy Working Group is aimed at identifying and investigating crucial policy interoperability issues arising in the implementation of large-scale Digital Libraries; identifying the state of the art in policy solutions implemented in other contexts, such as through the initiatives supporting the WG, and at proposing policy solutions.

Underpinning every DL, there is an organisation governed by a policy framework that makes the DL viable. In DL.org, policy interoperability is perceived as a meta-domain, situated both outside the DL and any technologies used to deliver it and within the DL itself. As policy permeates a DL from conceptualisation through to operation, it needs to be represented at diverse levels. However, policy interoperability is very much unexplored territory at global organisation level and in terms of interdisciplinary research. The Policy WG is chartered with developing a framework, testing its feasibility and producing a set of scenarios, including the U.S. Geological Survey appraisal policy, which is shaped by the records and management guidelines of international standards organisations.

One of the Workshop discussion points that remained unresolved regards the balance between an open architectural design and external guidance (standards, audit) to achieve interoperability and trust. Essentially this boils down to the question whether information environments and collaborations between

information environments require a minimum level of hierarchy and control to ensure quality, or whether the model of the web should lead us to decentralised environments that are able to scale and evolve over time. This and other issues that span technical issues as well as local and community organisations remain to be discussed in the future. The REPRISE Workshop was jointly hosted by D-Grid/WissGrid, the OGF DR RG, OGF-Europe, and DResNet.

#### **DL.org WG wikis**

[https://workinggroups.wiki.dlorg.eu/index.php/Main\\_Page](https://workinggroups.wiki.dlorg.eu/index.php/Main_Page)

#### **Digital Repository Audit & Certification wiki:**

<http://wiki.digitalrepositoryauditandcertification.org/bin/view>

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## **Event Report: DL.org at the Cultural Heritage online conference**



DL.org was in attendance at the Cultural Heritage online conference, 15-16 December 2009, Florence, Italy. The DL.org Exhibition Stand comprised a poster, project pamphlet and copies of the 1<sup>st</sup> DL.org Workshop Booklet, which all proved popular items. The conference was attended by 374 people from academic, research, government and commercial organisations, including policy-makers, practitioners and EC-funded initiatives. This two-day event offered DL.org an important networking opportunity to explore current and new strategic alliances with DL initiatives in Europe and globally, including the Library of Congress, TrebleCLEF and EuropeanaConnect, one of the Europeana group of projects funded by the EC's eContentPlus programme.

Jointly hosted by the Fondazione Rinascimento Digitale, the Italian Ministry of Cultural Heritage and the U.S. Library of Congress, the conference focused on "empowering users: an active role for user communities" with special emphasis on current and future trends in user communities, cultural content on the web and the DL application landscape, with international perspectives firmly in mind. The keynotes investigated user needs and expectations, analysing how to better involve users and the cultural heritage community in

creating and sharing digital resources, as well as national and international scenarios, spotlighting initiatives like the World Digital Library and Europeana.

The thematic sessions were aimed at evaluating the impact on user-institution relationships in the shift towards co-operative Web 2.0 tools on the one hand and sustainable digital preservation policies on the other. The talks and interactive discussions highlighted the pressing need to create a strong and more collaborative DL community to drive innovation by promoting best practices and on-going knowledge exchange. To this end, it is paramount to define new solutions and standards with minimum effort and maximum security, bringing to the table new ideas and paradigms of knowledge production to better serve the user community and societal needs.

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### DL.org Summer School



7-10 June 2010, Tirrenia, Pisa (Italy)

The DL.org Summer School – *Training on DL Interoperability Perspectives* - brings together young DL researchers, practitioners, and senior information managers for new knowledge acquisition on DL interoperability approaches and research perspectives. The expert-led and hands-on sessions will ensure attendees come away with an in-depth understanding of the practical, methodological and technical approaches of interoperability, the integration of interoperable solutions and on the Return on Investment resulting from interoperability. The Summer School also ensures knowledge exchange on both DL modelling & management and a grasp of key research areas and diverse approaches in core DL concepts. The Summer School opens with a Welcome Reception on Sunday 6 June.

**Venue & accommodation:** Hotel Continental, Tirrenia **Website:** [www.dlorgsummerschool.eu](http://www.dlorgsummerschool.eu)

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### eTraining



The DL.org on-line induction training courses are an ideal way to come to grips with core DL concepts: content, functionality, policy, quality, user and architecture. The current eCourses include an introduction course, a course on each of the six DL concepts and related concept maps. Trainees can pre-test their current knowledge of the DELOS Reference Model and assess progress through the user-friendly, Moodle-based tools available at:

[www.dlorg.eu/index.php/eCourses](http://www.dlorg.eu/index.php/eCourses)

The eTraining is conceived as a service supporting the Summer School.

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### Looking ahead - Special Report on ACM Digital Library & Linked Data



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Next month's Special Report spotlights advances in the DL space with special emphasis on Linked Data. Pioneering work in this area in a relatively short time-frame during 2009 has marked a major step towards the vision of the semantic web aimed at enriching the structure of the Web by embedding semantic annotations into data to improve the quality of search, collaboration, publishing and advertising and enable applications to become more integrated and intelligent.

The Resource Description Framework (RDF), a W3C standard for describing resources in the Web and a major component in what is proposed by the W3C for the Semantic Web, serves as the "interconnection bus" for current data formats.

Digital Libraries can benefit from RDF to facilitate digital resource management and support knowledge management for an interoperable information environment like that found in a DL.

The ACM Digital Library, which is due to adopt RDF in early 2010, is a good case in point. The Special Report features quotes from Professor Dame Wendy Hall, University of Southampton & ACM President and Scot Delman, Director of Group Publishing, ACM. A sneak preview is provided below:

*"The Semantic Web will transform the World Wide Web into a more useful and powerful information source. In particular it will revolutionise scientific and other web publishing by defining new web technologies that make more web content accessible to machines. These technologies will provide better tools that make it easier for people to create machine-readable content that is widely available,"* says Professor Dame Wendy Hall, ACM President.

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### DL.org on the Road: IRCDL2010



This month DL.org is delivering two talks at the 6th Italian Research Conference on Digital Libraries - IRCDL 2010 with its focus on access and interoperability. The talks on 28 January 2010 at the Department of Information Engineering - University of Padua, Italy address "making DL content interoperable", authored by DL.org partners Leonardo Candela, Donatella Castelli and Costantino Thanos from the National Research Council of Italy and "an event-centric provenance model for DLs", authored by the above together with Paolo Manghi, Pasquale Pagano and Cristina Tang from the same institution. Talk summaries will feature in our next eNewsletter.

### In Brief

#### Library of Congress puts thousands of books online

In late December 2009, the U.S. Library of Congress announced that nearly 60,000 books prized by historians, writers and genealogists have been digitally scanned as part of the first-ever mass book-digitisation project of the LoC, the world's largest library. Anyone who wants to learn

about the early history of the United States, or track the history of their own families, can read and download these books for free. The collection of books, many too old and fragile to be safely handled, is considered to offer historians a trove of information that is otherwise hard to locate.

#### The 2009 Tony Kent Strix Award winner is Carol Ann Peters

The 2009 Tony Kent Strix Award, given by the UK eInformation Group of CILIP: the Chartered Institute of Library and Information Professionals, has been awarded to Carol Ann Peters from the Institute of Information Science and Technology at the National Research Council of Italy (CNR-ISTI) in recognition of her work on the Cross Language Evaluation Forum (CLEF), the world's leading forum for evaluating cross language searching systems, which Carol initiated and has run for ten years.

CLEF is an annual evaluation exercise that has attracted a multi-disciplinary network of researchers to collaborate on shared tasks, to contribute to the CLEF testing resources, and to meet annually to present and discuss results.

The nomination noted that none of this would have happened had it not been for Carol Peter's initiation and continued drive to run and maintain CLEF. Carol's tireless work with CLEF has driven the information retrieval community to consider search in more than just the English language that previously dominated information retrieval research; thus she has made an enormous contribution to the awareness and understanding of information retrieval.

#### ERCIM News – n.80 Special Theme on Digital Preservation

The latest issue of ERCIM News brings a series of articles dedicated to Digital Preservation with a keynote from Pat Manson, Head of Unit "Cultural Heritage & Technology Enhanced Learning"; European Commission, Information Society and Media Directorate-General along with contributions from many European initiatives, including projects supporting DL.org's Working Groups, such as CASPAR, Planets and SHAMAN. The Special Theme is co-ordinated by Ingeborg Solvberg, Norwegian University of Science and Technology; and Andreas Rauber, Vienna Technical University, a member of DL.org's Working Group on DL Functionality Interoperability: <http://ercim-news.ercim.eu/>