



Digital Library Interoperability, Best Practices and Modelling Foundations - A common Journey to new Frontiers

"DL.org has brought together the leaders in this space, particularly in Europe and the U.S., but also from Asia and South Africa. Launching the conversation at places like this is incredibly important for people to interact together. This is by far the most comprehensive attempt yet to capture the whole space for DL research and development that needs to be done. I think it will become "the" forum for considering that."

Ronald Larsen, Dean and Professor of the School of Information Sciences,
University of Pittsburgh, U.S.



"DL.org brings together a team of researchers with a proven track record that is recognised worldwide for their expertise in the digital library community. They recognise that interoperable systems are the key to ensuring that digital libraries continue to grow in a way that meets the needs of users across the Web. Capturing best practices, providing a "living" Digital Library Reference Model and addressing on-going educational needs will fill crucial needs for global digital library community".

Geneva Henry, Executive Director of the Center for Digital Scholarship, Rice University, U.S.



DL.org Innovative Approach

Digital Library interoperability is a complex, multi-layered and context-specific concept that encompasses different layers along a multi-dimensional spectrum ranging from organisational to technological aspects. The European project, DL.org, is the first initiative to address interoperability from the perspectives of the six core concepts characterising a Digital Library: content, functionality, user, policy, quality and architecture.

Digital Library Reference Model

The DL.org Reference Model introduces the principles governing the Digital Library realm and captures the core concepts and relationships among them that collectively characterise this domain. It includes the Digital Library Manifesto that paved the way for a foundational theory for Digital Libraries. The Reference Model stems from DELOS, a European Network of Excellence and the experience and knowledge gained by the international Digital Library Community. An enhanced

version of the current Reference Model is in production and will be available by late February 2011.

Digital Library Technology and Methodology Cookbook

The Cookbook is an innovative artefact produced by DL.org to present a portfolio of best practices and pattern solutions to common issues faced when developing large-scale interoperable Digital Library systems. The "Cookbook" proposes an interoperability model that can be used to systematically characterise diverse facets linked to the interoperability challenge, as well as existing and forthcoming solutions and approaches. It thus offers a framework to assess and select these solutions. A Request for Comment version of the Cookbook is available. The final version, informed by Digital Library Community feedback, will be published by February 2011.

Open Access & Interoperability

Wolfram Horstmann, CIO Scholarly Information at Bielefeld University, shares his insights on Digital Libraries, Open Access and Interoperability.

Digital repositories that openly expose research results on the internet embrace a highly distributed and decentralised approach to organise digital libraries, as can be seen, in the case of text documents, where several thousand rather autonomous repositories expose more than 25 million documents using the OAI-PMH protocol. Such a distributed system of digital repositories poses an almost arbitrary number of interoperability challenges:

- Standard compliance and technical reliability at the local repository level.
- The ripening of a rich system of providers for added-value services exploiting the local repository data.
- The quest for a global repository infrastructure.

To make focused progress on these “many ways” to interoperability, we need to work against a joint conceptual framework such as the DL.org Digital Library Reference Model with its six core domains (Content, Functionality, Policy,

Quality, User, Architecture), and consider the three levels of interoperability (technical, semantic and organisational) within the DL.org Interoperability Framework. Two current European initiatives, which focus on building digital library systems on the basis of interoperable repositories, namely “Digital Repository Infrastructure Vision for European Research” (DRIVER) and “Open Access Infrastructure for Research in Europe” (OpenAIRE) provide an appropriate case to test a systematic approach to interoperability: the D-NET software addressing service interoperability (‘technical’), the DRIVER-Guidelines addressing the interoperability of content (‘semantic’) and the system of National Open Access Desks (NOADs in OpenAIRE) addressing social and policy aspects (‘organisational’). Additionally, investigations should further examine how a conceptual framework such as the DL.org Interoperability Framework applied to digital library initiatives like such as DRIVER and OpenAIRE could enable make systematic progress on the “many ways” to interoperability – without restricting the autonomy of the interoperating constituents within a digital library system, that is the individual repositories.



Opening up New Perspectives

“Interoperability will open up new research perspectives, transforming the way researchers from diverse domains think and work. This advanced information space should combine grass-root research activities with an information and research environment that links people together while also seamlessly integrating additional requirements regarding the interoperability of resources. In this respect, DL.org has an important role to play in conveying the benefits of interoperability

to a diverse set of stakeholders, such as Digital Library developers and end-users, archivists, librarians, content curators, system librarians, as well as decision-makers particularly on the policy and investment front.”

Tobias Blanke, King's College London, UK



Join our Community & Get regular Insights from our Experts!

Our community brings together Digital Library experts, professionals and initiatives from across Europe, as well as Australia, India, Singapore and the U.S. Join our growing community and receive regular insights into DL.org by subscribing to our eNewsletter at info@dlorg.eu or from the home page.

