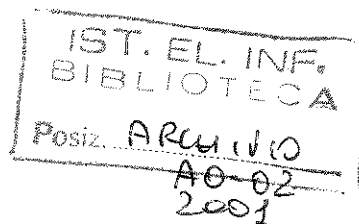


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**Scholnet and Cyclades: Extending the Role of Digital Libraries**

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Scholnet (IST-1000-20664) and **Cyclades** (IST-2000-25456) are two new digital library projects funded by the EU 5th Framework Programme and coordinated scientifically by the IEI - CNR. Both projects aim at extending the role of a digital library by providing services that support remote communication and collaboration among scholars. In particular, the goal of Scholnet is to develop a digital library providing an enhanced set of specialised services, while Cyclades is focussed on the need to develop a service environment on top of large heterogeneous and multidisciplinary interoperable archives. A short description of the two projects is given below.

Scholnet (<http://www.ercim.org/scholnet>) aims at enabling the immediate dissemination and accessibility of technical documentation within a globally distributed multilingual community.

In order to achieve this objective, Scholnet will provide:

- *traditional digital library services on multimedia documents.* These services enable scholars to communicate through the publication of/access to not only textual documentation such as technical reports, project deliverables, workshop proceedings, etc., but also videos of tutorials or seminars (possibly synchronized with corresponding textual slides), training sessions, project presentation, demos, etc.
- *handling of document annotations.* Annotations can be textual notes, ratings, links, etc., associated with either the entire document or with its parts. Annotations can be authored by different people and will have public or group restricted access privileges.

- *monolingual and multilingual search and retrieval services.* Monolingual search is provided in all of the project languages; by specifying the search language, the system searches only those documents that contain information in that language. In addition, a cross-language search facility allows users to query in their own language and retrieve documents matching the query in other languages.
- *automatic personalised information dissemination service.* A pro-active facility sends messages when a new document arrives in the digital library to those users who, on the basis of their system-maintained profiles, are potentially interested in its contents.

From the technical point of view the Scholnet infrastructure will be built by extending, and partially re-thinking, the basic services provided by the ERCIM Technical Reference Digital Library (ETRDL) (<http://www.iei.pi.cnr.it/DELOS/ETRDL>).

The Scholnet partners are: IEI-CNR, Italy; INRIA, France; GMD, Germany; FORTH, Greece; SICS, Sweden; University of Masarik, Czech Republic, and ERCIM (European Research Consortium for Informatics and Mathematics).

Cyclades (<http://www.iei.pi.cnr.it/cyclades>) will develop an open collaborative virtual archive service environment supporting both single scholars as well as scholarly communities in carrying out their work. In particular, it will provide functionality to access large, heterogeneous, multidisciplinary archives distributed over the Web and to support remote collaboration among the members of communities of interest.

Cyclades will run on the data environment composed by the archives that adhere to the Open Archives Initiatives harvesting protocol specifications (<http://www.openarchives.org>). From the technical point of view, Cyclades will consist of the following federation of independent but interoperable services:

- *Access:* supports harvest-based information gathering, plus indexing and storage of gathered information in a local database.
- *Query and Browse:* supports the users in formulating queries and develops plans for their evaluation. In particular, it provides an advanced multilevel browse facility, completely integrated with the search facility, that allows one to browse at schema, attributes, and document levels.
- *Collection:* provides mechanisms for dynamically structuring the overall information space into meaningful (from some community's perspective) collections.
- *Personalization:* supports information personalization on the basis of individual user profiles, and profiles of the working communities the user belongs to. User and community profiles are automatically inferred by monitoring the user behavior.
- *Recommendation:* provides recommendations about new published articles within a working community. The choice about what recommendations to send and to whom is based on both the user and the working community profiles.
- *Collaborative Work:* supports collaboration between members of remotely distributed working groups by providing functionality for creating shared working spaces referencing users' own documents, collections, recommendations, related links, textual annotations, ratings, etc.

Cyclades will be developed by: IEI-CNR, Italy; GMD-FIT, Germany; University of Dortmund, Germany; FORTH, Greece; and ERCIM.

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Taking a Common View of Educational Metadata

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In common with other countries, the potential of e-Learning is being vigorously seized upon in the United Kingdom. We now have a whole range of public sector developments, including Universities for Industry, National Grids for Learning, e-Universities, a Distributed National Electronic Resource, and the like. These are joined by initiatives funded from the proceeds of our National Lottery, such as SCRAN and the new New Opportunities Fund Digitisation Programme, and a wealth of commercial offerings from the UK itself and beyond.

For the learner, however, the real potential offered by all of this on-tap content is diluted by the disjointed manner in which material is being placed online.

In an effort to reduce duplication, share experiences, and place the needs of the learner firmly to the fore, public and private sector organisations responsible for creating, storing, using and delivering educational resources have come together in forming the Metadata for Education Group (MEG) <<http://www.ukoln.ac.uk/metadata/education/>>.

Operating under the auspices of UKOLN's Interoperability Focus, MEG offers a forum in which public and private sector bodies from across the UK can meet and address matters of concern in a way that no single agency currently has a remit to do.

The group's work is moved forward both through face-to-face meetings, and in discussion on and around the uk-meg electronic mailing list <<http://www.jiscmail.ac.uk/lists/uk-meg.html>>.

The work of MEG is explicitly not about the creation of whole new standards for educational metadata. Rather, members focus upon developing consensus on the best approaches to a range of problems within the framework of existing standards and specifications. Where requirements emerge for new or revised standards, these can be fed from MEG to the relevant national and international committees for action.

The MEG Concord

The first significant deliverable from the group is the MEG Concord, which was released towards the end of 2000.

The Concord is intended as a public statement of the open and consensual manner in which MEG works, and organisations are invited to lend their support to this process by signing up. At the time of writing, some 45 organisations have done so, including the JISC, the National Learning Network, the New Opportunities Fund, University for Industry, and many more, including teaching institutions such as the University of Hull and Aberdeen College. A number of further major bodies are in the process of signing up, too.