

UKOLN is a centre of expertise in digital information management, providing advice and services to the library, information, education and cultural heritage communities by:

- * Influencing policy and informing practice
- * Promoting community-building and consensus-making by actively raising awareness
- * Advancing knowledge through research and development
- * Building innovative systems and services based on Web technologies
- * Acting as an agent for knowledge transfer



Looking at Interoperability

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UKOLN is funded by MLA: the Museums, Libraries and Archives Council; the Joint Information Systems Committee (JISC) of the Higher and Further Education Funding Councils, as well as by project funding from the JISC and the European Union. UKOLN also receives support from the University of Bath where it is based.

Looking at Interoperability ...exchange, reuse and flexibility

What is Interoperability?

Interoperability can be regarded as the ongoing process of ensuring that the systems, procedures and culture of an organisation are managed in such a way as to maximise opportunities for exchange and reuse of information. It covers many areas including:

Technical Interoperability - One important consideration here is the development of communication, transport, storage and representation standards.

Semantic Interoperability - The use of different terms to describe similar concepts can cause problems in communication, program execution and data transfer.

Political/ Human Interoperability - The decision to make resources more widely available also has implications for organisations, their staff and end users.

Inter-community Interoperability - There is an increasing need to require access to information from a wide range of sources and communities.

International Interoperability - When working with other countries there are variations in standards, communication problems, language barriers, differences in communication styles and a lack of common ground.

Being seen to 'be interoperable' is becoming increasingly important. People wish to find and use high quality information resources, possibly from many different sources. Digital information services should facilitate that process, and, increasingly, service providers face the challenge of considering how their own services will be used in combination with other services.

An interoperable organisation is able to maximise the value and reuse potential of information. It is also able to exchange its own information effectively with other equally interoperable bodies, allowing new knowledge to be generated from the identification of relationships between previously unrelated sets of data. Changing internal systems and practices to make them interoperable is a far from simple task. However, the greater flexibility and benefits for the organisation and those making use of information it publishes are potentially incalculable. Many organisations are aware of the need to work in this way and UKOLN supports communities in their efforts to build connections and to develop interoperable systems and processes.

Interoperability Focus Team

UKOLN's Interoperability Focus team is responsible for exploring, publicising and promoting the benefits and practice of effective interoperability across diverse information sectors. The work includes the identification and exploitation of synergies with existing UKOLN activities, and the dissemination of information to promote cross-fertilisation of ideas and knowledge across our communities.

The Interoperability Focus Web site [<http://www.ukoln.ac.uk/interop-focus/>] provides a list of all presentations, publications and current events. Practical sections of the site include in depth answers to frequently asked questions and pointers to examples of interoperability in action. Introductions on a number of topics also regularly appear in the Ariadne Web magazine [<http://www.ariadne.ac.uk/>] alongside more detailed discussion of specific areas

Standardisation Work

A key aspect of interoperability is use of standards. Standards are important because they provide guidance for those involved in creating digital information or services. UKOLN is involved in standardisation initiatives in several areas, including:



Interoperability in Action

Interoperability in its various forms underpins much of the work undertaken at UKOLN.

An important aspect of developing interoperability applications is seeking consensus across organisations. UKOLN is actively engaged in supporting brokerage activities, which bring together key players in order to agree on approaches to interoperability.

During the eLib programme UKOLN managed the MODELS project, which provided a forum for the development of interoperability in a range of areas including metadata and retrieval standards, and rights management. The information architecture approach taken within MODELS has informed many other UKOLN activities. Other collaborative work includes the development of a Collection Description Schema, which is now used by many services and projects such as Cornocopia and enrichUK as the basis for collection description implementations, and involvement in the Dublin Core Metadata Initiative (DCMI).

Another project that UKOLN are participating in is the Information Environment Service Registry (IESR), which is building a Schema Registry to act as the primary source for authoritative information about metadata schemas recommended by the JISC Information Environment Standards framework. The metadata schema registry aspect of the project will provide access to information on metadata vocabularies and application profiles used for resource description in the UK learning, teaching and research communities. The Subject Portals Project supports this service.

What Next?

Further information on interoperability is available from the Interoperability Focus Web site: <http://www.ukoln.ac.uk/interop-focus/>

To discuss interoperability issues join the JISC mailing list: <http://www.jiscmail.ac.uk/lists/interoperability.html>

To contact Interoperability Focus or send us feedback email: interop-focus@ukoln.ac.uk