

The Common User Interface for the

ERCIM

Technical Reference

Digital Library

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UNDERSTANDING DIGITAL LIBRARIES

- A digital library as a system that performs or supports at least the functions of a library in a context of distributed networked collections.
- This very intuitive definition may hide how the underlying technology of DL is different from the underlying technology of paper documents.
- Digital libraries include the capabilities of physical libraries but potentially go well beyond them in scope and meaning.

D.L.'s versus traditional libraries

Some of the proposed dimensions for exploring the potential differences between Traditional and Digital libraries:

- T : stable and slowly evolving
- D : highly dynamic, ephemeral and versioned
- T: objects with largely flat structure and minimal context and meta information
- D: documents with significant internal scaffold structure and significant context/ meta information
- T: scholar-authored and pre-credentialled objects
- D: anyone can publish in a lightweight way; credentialling through use is possible

D.L.'s versus traditional libraries

- T: based upon centralized control and relatively few access locations
- D: distributed and ubiquitous

- T: objects are physically and logically co-controlled
- D: physical and logical organizations are separated (virtual collections)

- T: universal access and free
- D: could support rich layers of access control and management of terms and conditions

- T: a consumer looking for an object
- D: symmetric search : consumers looking for an object and producers of the object looking for a consumer



- The digital library as a simulation of a traditional library
- or
- entirely new modes of support the life cycle of information
 - creation
 - distribution
 - use
 - Preservation

Addressing the challenges in the DL area requires a multidisciplinary approach, therefore experimentation proceeds step by step.

Repository of
digital objects

- Insert
- Update
- Withdraw



GET

[Terms & Condition]

- The system we are presenting here, the ERCIM Technical Reference Digital Library - ETRDL - gives certain solutions to part of the problems underlying the design of an infrastructure for a digital library.

- Some of the solutions are not adequate to the present understanding of digital library requirements, but ETRDL is an operational system and, as such, both offers services and is a good tool for experimentation.

ERCIM - European Research Consortium for Informatics and Mathematics

DELOS Working Group on Digital Library

ETRDL
ERCIM Technical Reference Digital Library

ETRDL Partners:

CNR-Italy

CWI-Netherlands

FORTH-Greece

GMD-Germany

INRIA-France

INESC-Portugal

SICS-Sweden

SZTAKI-Hungary

Objective:

- Install a digital library service for technical documentation produced by the ERCIM scientists
- Maintain interoperability with NCSTRL - Networked Computer Science Digital Library (USA)

Infrastructure:

- The Dienst system (Cornell University-USA)

a digital library architecture, a protocol and implementation

that provides Internet access to

a distributed, decentralized multiformat document collection
by a set of interoperating servers distributed over the Internet

- *Multiple Dienst servers interoperate to provide a logically uniform collection to the user, even though the physical collection is distributed. Each individual Dienst server “knows” about other sites, and vice-versa, by periodically polling a central meta-server site.*

DIENST basic services:

- **Repository service** - stores digital objects in different formats (deposit, storage, access);
- **Meta service** - furnishes services that provide information for interoperability among servers;
- **Index service** - provides mechanism for discovery of digital objects via query;
- **User interface services** - are the human entry points to the functionalities of the DL; they can be highly customized for a specific community.

ERCIM scientific community has its own specific requirements

ETDRL users:

- information users**
- information providers**
- information administrators (librarians)**

Information user requirements

- search and retrieve pertinent information
- have the results of a browse or search presented in an easy-to-understand format
- view and download the documents retrieved
- access information using preferred language
- access all information available on given topic, whatever the language

Information provider requirements

- submit documents and their relevant bibliographic records to the system in an easy, fast and efficient way
- make documents as widely accessible as possible
- classify documents using familiar classification scheme
- communicate with the system administrator or librarian
- update or eliminate information files when necessary

Information administrator

- receive homogeneous and correctly compiled bibliographic records
- enter new documents easily into a selected collection
- communicate with the information provider

Satisfying user needs

- a lot of modifications to the basic Dienst system
- the design of the Common User Interface including:
 - adoption of a common metadata description standard,
 - introduction of common classification schemes and methods to manage them,
 - implementation of multilingual interfaces
 - implementation of on-line functionalities for two special types of users: information providers and information administrators (librarians)
 - implementation of multiple formats management

DL characteristics versus DIENST/ETRDL

- D : highly dynamic, ephemeral and versioned
ETRDL documents are inserted in and withdrawn from the Repository according to predefined rules
- D: documents with significant internal scaffold structure and significant context/meta information
ETRDL documents have knowable and manageable sections and pages; have different formats; the viability of DC for representing electronic resources can be tested
- D: anyone can publish in a lightweight way; credentialling through use is possible
One of the objective of ETRDL and NCSTRL is the creation of sites with credentialled documents on the Internet

- D: distributed and ubiquitous
- D : could support rich layers of access control and management of terms and conditions
Access to meta-information and abstracts is free; access to the document can be protected
- D: symmetric search : consumers looking for an object and producers of the object looking for a consumer

How ETDRL appears

iei.pi.cnr.it/DELOS

- the WEB pages

- The Centralised Home Page (English)
Http://iei.pi.cnr.it/DELOS
- Local Home Pages (Local language/English) - Common User Interface
 - *information users* : search/browse any collection;
 - *information providers*: submit/withdraw a document to/from a local collection
- Administrator Home Pages (Transparent to the general public and accessible by authorised persons only)