A Digital Library Testbed to Support Networked Scholarly Communities

Donatella Castelli
IEI-CNR
Italy

General Information

☐ Funding Programme
   EU V Framework Programme
   IST - Research Networking

☐ Effort: 220 p/m
☐ Duration: 30 months
☐ Commencement date: November 2000
General Information

- Project consortium
  - CNR (Scientific Coordinator, Italy)
  - INRIA (France)
  - FhG (Germany)
  - FORTH (Greece)
  - SICS AM (Sweden)
  - Univ. of Masaryk (Czech Republic)
  - ERCIM (Administrative Coordinator, France)

Rome, 25-26 March, 2002
EC/NSF All DL Projects Concertation meeting

Objective

SCHOLNET aims at developing a digital library service system to support the communication and the collaboration within networked scholarly communities

Rome, 25-26 March, 2002
EC/NSF All DL Projects Concertation meeting
Functionality

- information acquisition, description, archiving, search, access, and dissemination of multimedia documents
- handling of annotations on documents
- multilingual access
- personalised information dissemination

Scholarly communities

Scholnet must be able to serve the needs of any scholarly communities
Serving any community (1)

- Generic with respect to the DL content
  - Structure of the document
  - Organisation of the information space
  - Metadata format
  - Controlled vocabulary

Serving any community (2)

- Adaptable services
  
e.g. Search
  - Type of search
    Simple, fielded, cross-language, relevance feedback,....
  - Query language
    Fields, relational operators, allowed terms,....
  - Format and organisation of the retrieved records
    Short, detailed,...ranked,....
Extensible set of services (Open)

Different communities need their own specific services

- Research community: Co-operative work service
- Worldwide community of medicine: Translation service

Two step solution

1. Open Service Management System (OSMS)

2. Generic and adaptable services covering the required functionality
Open Service Management System

Manager of an open federation of centralised or distributed and/or replicated services

- Identify, List Verbs, Describe Verb, ...
- Protocol handler
- Dispatcher

- Services of the federation
- Allocation of services to servers
- Service configuration values
- Status of the services

Get information about the service
Building a federation

Replication and Distribution
Two step solution

1. Open Service Management System (OSMS)

2. Generic and adaptable services covering the required functionality

DL services system

OSMS has been instantiated with a federation of services which provide the basic digital library functionality
1. Versatile storage document model
   ➢ Edition
   ➢ View
     e.g. whole document,
     structured document,
     annotated document, .....
     summary, .....
     link-to, .....
   ➢ Manifestation

Generic with respect to the content (cont.)

➢ Part-Of
   journal – articles
   thesis – chapters - sections
   video – scenes - shots
   seminar – slides + video .....

Rome, 25-26 March, 2002      EC/NSF All DL Projects Concertation meeting
2. Multiple metadata formats associated with the document and its parts

- A common metadata format is mandatory

---

Implementation

- Protocol
  - HTTP(S) embedded
  - parameters, results: XML encoded

- OSMS, OpenDLib: Apache - ModPerl

- Other Scholnet services: different sw choices
Status of the implementation

- OSMS: completed
- OpenDLib, Scholnet: ongoing
- Scholnet first prototype: completed by September 2002

Rome, 25-26 March, 2002  EC/NSF All DL Projects Concertation meeting

http://www.ercim.org/scholnet