

First EDLproject Workshop on developing the European Digital Library



Austrian National Library, Vienna
27/28 November 2006

Workshop Report
Final Version, 2007-01-25

Executive Summary

The EDLproject¹ workshop² organised by the Austrian National Library³ in Vienna on 27/28 November 2006 on behalf of The European Library (TEL)⁴ and CENL⁵ (Conference of European National Librarians) brought together representatives of a number of projects funded by the eContentplus⁶ programme to discuss practical collaboration between them to support the development of the “European digital library” as envisaged by the “i2010 digital libraries” initiative⁷ of the European Commission. The workshop was a great success with participants actively wishing to collaborate on a future European digital library and to work cooperatively with its current form The European Library. The eContentplus projects at the workshop were a mix of content and technique but all have something very valuable to offer in the creation of a European digital library.

Two levels of possible cooperation between The European Library and other projects were proposed.

The first level is integration, linking and deduplication of tasks between The European Library and the eContentplus projects. Where possible a functional integration of the services developed in these projects within The European Library portal will be achieved by deploying them directly in the technical infrastructure of The European Library, or by interoperation with their remote deployments (e.g. by using web service technologies, defining APIs etc.). When a strong functional integration is not possible or not desired, reciprocal linking between the projects and The European Library is envisaged. Removal of duplicated work by working

¹ <http://www.edlproject.eu/>

² <http://www.edlproject.eu/agenda.php>

³ <http://www.onb.ac.at/>

⁴ <http://www.theeuropeanlibrary.org/>

⁵ <http://www.cenl.org/>

⁶ http://ec.europa.eu/information_society/activities/econtentplus/index_en.htm

⁷ http://ec.europa.eu/information_society/activities/digital_libraries/index_en.htm

collaboratively on defined tasks relevant to both The European Library and the projects will provide a very important building block for co-operation both now and in the future.

The second level of cooperation is to be part of a future European *digital* library. This involves not only technical issues but also the working out of concrete scenarios and defining the organisational and governance structure of such an undertaking. Jill Cousins, Director of The European Library, presented possible organisational models for a European digital library: 1) A network of networks; 2) The Society Publishing model (uses the journals of societies but in agreed data form in a central publishers website but allows the society to publish the journal in the form society wishes); 3) An expansion of CENL, affiliating also non-National Library members. The model most favoured currently by The European Library and CENL is that of the society publishing model as it allows organisations and associations to go at their own pace so the slower ones are not forcing the pace of the faster ones but the aim of providing access to all in one place is achieved

The opportunities The European Library can offer to other projects, when cooperating in the context of EDLproject, include using The European Library as a test base for their services, promoting the TEL Application Profile for increasing interoperability in search and retrieval among the different and various sources and using The European Library as a route to market and publicity. Cooperation might well result in new routes to new content for The European Library and a future European digital library, as well as in new technical solutions and advancements in interoperability of services and metadata.

During the workshop agreement was reached to undertake a number of further concrete cooperative activities including the following:

- EDLproject will further support the exchange of information between eContent*plus* projects, inter alia by offering the EDLproject Website as a platform to publish the project results of all projects. The EDLproject blog can be used to discuss issues like interoperability, governance models etc.
- Liaison with Minerva EC to further advance the process started in this workshop
- A strengthening of bilateral contacts between The European Library and the workshop partners
- More minds making lighter work by sharing of knowledge and research in the areas of historical geographical names and multilingualism
- The European Library will provide a test version of its portal through EDLproject, by the end of March 2007, to the workshop partners which could serve as a test bed both for experimenting with new services and for expanding The European Library
- The European Library and the eContent*plus* projects will elaborate scenarios and technical specifications for the creation of web services by participating data providers and services providers
- The European Library and the eContent*plus* projects will investigate interfaces to provide The European Library service as web service to other services
- The European Library and the other projects represented in the workshop will investigate the building of new networks for cross searching (e.g. architecture information from across both libraries, archives, museums and other relevant entities)
- The European Library will investigate joining organisations such as MELT and LRE (Learning Resource Exchange)



All the invited projects engaged positively with the issues and will seek practical collaboration between The European Library and themselves to achieve a European digital library. Most of the projects are able to conform easily to the technical requirements of The European Library service. Such compliance would enable structured searching across the cultural heritage of Europe. The specific activity planned by each project is noted in the summary of their presentation at the workshop.

In view of the success of this workshop, it was proposed that EDLproject would begin work on creating a sustainable organisational and business model for the European digital library able to keep such content and access available and maintainable. A workshop on this subject will take place at the Austrian National Library on 31 January – 1 February, 2007.⁸ Working with national and pan-European networks in museums, archives, libraries and cultural heritage repositories, the aim will be to air the issues of creating a framework for such bodies to work together and lay down a timeline for resolving them.

⁸ http://www.edlproject.eu/news_events2.php

Introduction

The “i2010 digital libraries” initiative⁹ is a flagship initiative within the i2010 programme of the European Commission. A main objective of the initiative is to build the “European digital library”, a multilingual access point to the distributed cultural collections in Europe. The European digital library, being built over the next 3 to 4 years, will serve as an entry point to Europe’s digital content in libraries, archives, museums and other cultural institutions. The initiative addresses all types of material: books, audio, video, photographs, documents in archives etc. The European digital library does not start from scratch. With the EU’s endorsement for The European Library¹⁰ service (TEL), access to the collections of Europe’s National Libraries is already a foundation. The European Library is a service of the Conference of European National Librarians¹¹ (CENL) offering free, item level, access to the combined resources, books, magazines, journals, manuscripts, sound and video archives, both digital and non-digital, from 23 of the 47 national libraries of Europe.

The recently started EDL (European Digital Library) project¹², funded under the Commission’s eContent*plus*¹³ programme and coordinated by the German National Library¹⁴, will strengthen and expand The European Library, creating access to digital collections more quickly than would otherwise be the case. It started in September 2006 and works towards the integration of the bibliographic catalogues and digital collections of the National Libraries of Belgium, Greece, Iceland, Ireland, Liechtenstein, Luxembourg, Norway, Spain and Sweden, into The European Library.

EDLproject also addresses the enhancement of multilingual capabilities of The European Library portal; takes first steps towards collaboration between The European Library and other non-library cultural initiatives, and expands the marketing and communication activities of The European Library service. Contributing to the preparation of the European digital library, EDLproject aims to provide a framework for dialogue with the other 2005 call eContent*plus* projects about possible participation in a network based on The European Library.

The two day workshop¹⁵ in Vienna, organized by the Austrian National Library¹⁶, was another step by EDLproject towards collaboration between The European Library and other initiatives. It assembled representatives from several eContent*plus* projects ranging from video and sound archives to paper memory and a history textbook database able to portray history from different nations’ viewpoints. The workshop concentrated on the practical issues of bringing these materials and networks into The European Library, in preparation for a European *digital* library.

Along with presentations from Jill Cousins, Eric van der Meulen and Sally Chambers from The European Library Office, eight eContent*plus* projects (Bernstein, CITER, DIGMAP, DISMARC, JEM, MACE, MELT and Video Active) presented the aims and objectives of their

⁹ http://ec.europa.eu/information_society/activities/digital_libraries/index_en.htm

¹⁰ <http://www.theeuropeanlibrary.org/>

¹¹ <http://www.cenl.org/>

¹² <http://www.EDLproject.eu/>

¹³ http://ec.europa.eu/information_society/activities/econtentplus/index_en.htm

¹⁴ <http://www.d-nb.de/>

¹⁵ <http://www.edlproject.eu/agenda.php>

¹⁶ <http://www.onb.ac.at/>

projects, including a SWOT analysis on the benefits and challenges of being involved in such a network.

Following the presentations two break-out sessions on *technical infrastructure* and *metadata interoperability* were held. These break-out sessions were intended to identify practical ways in which the projects and The European Library can work together. In the first instance, it was agreed that cooperation will be with the projects that provide digital content including *Bernstein* – digitised items for history of paper and watermark research; *DISMARC* – digital music archive audio material; and *Video Active* – 10,000 items of digital European television archive content. This work (EDLproject WP1, task 4) will investigate whether the metadata from these projects is compatible with the current the TEL Application Profile or whether work needs to be done to include metadata elements for non-library collections. The workshop delivered elements of a practical action plan for concrete collaboration in fabricating the pieces for the European digital library jigsaw, ensuring de-duplication of work where possible.

The projects created an atmosphere of enormous willingness to work together with The European Library to achieve a European *digital* library. The workshop was very successful with most of the projects able to conform easily to the technical requirements of The European Library service – enabling therefore, structured searching across the cultural heritage of Europe. This allows a researcher, for example, to find the footage of film of The Beatles' European tour as well as hearing the songs from the tour and reading about the effect on the youth in the various toured countries in one search. The highly structured nature of the material held in libraries and other European cultural heritage repositories means such searches can be conducted thematically as well as searching on time and place which is difficult to achieve with the mass search engines.

All presentations of the workshop are accessible via the EDLproject website, at <http://www.edlproject.eu/agenda.php>.

Next the EDLproject will work on the issues around creating a sustainable organisational and business model for the European digital library able to keep such content and access available and maintainable. A second workshop on this subject will take place, again at the Austrian National Library, at the end of January 2007. Working with national and pan-European networks in museums, archives, libraries and cultural heritage repositories, the aim will be to air the issues of creating a framework for such bodies to work together and lay down a timeline for resolving them.

Workshop Agenda

Agenda 27 November 2006

09:30 – 10:00 **Arrival, Coffee**

Session 1

Moderation: Hans Petschar, Austrian National Library, Vienna

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|---------------|--|--|
| 10:00 – 10:30 | Welcome and Introductions | <i>Hans Petschar, Austrian National Library, Vienna</i> |
| 10:30 – 11:15 | Purpose of the Workshop. Introduction to EDLproject and to The European Library: vision, organisation, current status and future developments. Collaboration Scenarios | <i>Jill Cousins, The European Library Office, The Hague</i> |
| 11:15 – 12:00 | How The European Library works: Technical Aspects of the The European Library Portal, future plans | <i>Eric van der Meulen, The European Library Office, The Hague</i> |

12:00 – 13:30 **Lunch Break**

Session 2

Moderation: Max Kaiser, Austrian National Library, Vienna

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|---------------|-------------------|--|
| 13:30 – 14:15 | DIGMAP Project | <i>José Borbinha, Instituto Superior Técnico, Lisbon</i> |
| 14:15 – 15:00 | Bernstein Project | <i>Emanuel Wenger & Vlad Atanasiu, Austrian Academy of Sciences, Commission for Scientific Visualization, Vienna</i> |

15:00 – 15:30 **Coffee Break**

Session 3

Moderation: Britta Woldering, German National Library, Frankfurt

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|---------------|----------------------------|--|
| 15:30 – 16:00 | MACE Project | <i>Stefan Apelt, FIT Fraunhofer Institute for Applied Information Technology, Sankt Augustin</i> |
| 16:00 – 16:30 | MELT Project | <i>David Massart, European Schoolnet (EUN), Brussels</i> |
| 16:30 – 17:00 | CITER Project | <i>Thanasis Hadzilacos & Dieter Pfoser, Research Academic Computer Technology Institute, Patras,</i> |
| 17:00 – 17:30 | Discussion and Q&A Session | <i>Moderation: Britta Woldering, German National Library, Frankfurt</i> |
| 17:30 – 17:45 | Wrap-Up | <i>Jill Cousins, The European Library Office, The Hague</i> |

20:00 **Dinner**

Agenda 28 November 2006

08:30 – 09:00 **Meet, Coffee**

Session 4

Moderation: Monika Segbert, Eremo s.r.l., Cupramontana

09:00 – 10:00 Metadata in The European Library: current status, future developments *Sally Chambers, The European Library Office, The Hague*

10:00 – 10:45 JEM Project *José Francisco Rodrigues, University of Lisbon*

10:45 – 11:15 **Coffee Break**

Session 5

Moderation: Hans Petschar, Austrian National Library, Vienna

11:15 – 12:00 Video Active Project *Johan Oomen, Utrecht University & Alexander Hecht, Austrian Broadcasting Corporation (ORF), Vienna*

12:00– 12:45 DISMARC Project *Martin Gordon, Rundfunk Berlin-Brandenburg, Berlin*

12:45 – 14:15 **Lunch Break**

14:15 – 14:30 Identification of Discussion Items for Breakout Sessions *Moderation: Monika Segbert, Eremo s.r.l., Cupramontana*

14:30– 16:00 Two parallel Breakout Sessions to identify issues and propose collaboration scenarios *Moderation: Britta Woldering, German National Library, Frankfurt & Monika Segbert, Eremo s.r.l., Cupramontana*

16:00 – 16:15 **Coffee Break**

16:15 – 16:45 Reporting back *Sally Chambers & Eric van der Meulen, The European Library-Office, The Hague*

16:45 – 17:00 Wrap-up, next steps *Hans Petschar, Austrian National Library, Vienna*

Project presentations

EDLproject¹⁷

European Digital Library Project

Presentations by Jill Cousins, Sally Chambers and Eric van der Meulen, The European Library Office, The Hague

http://www.edlproject.eu/downloads/TEL_FirstEDLprojectWorkshopVienna_Nov2006.ppt

http://www.edlproject.eu/downloads/TELtechnical_FirstEDLprojectWorkshopVienna_Nov2006.ppt

http://www.edlproject.eu/downloads/TELMetadata_FirstEDLprojectWorkshopVienna_Nov2006.ppt

EDLproject addresses the following core issues: accessing the digital content available currently within the European Union, finding ways to increase what is digitally available and avoiding the reinvention of the wheel by building on the existing infrastructure of The European Library as a business model and operational service. EDLproject adds content to the existing The European Library now funded by CENL (Conference of European National Librarians) members but created with support of FP5 of the IST programme (TEL project) and FP6 (TEL-ME-MOR project). CENL will take forward the development and coordination of strategies for digitisation and digital libraries throughout Europe.

The European Library is quoted as an example of good practice in the EU Communication i2010: Digital Libraries. It adds value to content through standardised metadata and multilingual access tools.

The European Library offers a model platform and organisational network for co-operation between national libraries and for the co-ordination of national initiatives on a European level and is an ideal point of entry to the digital material of European cultural institutions. EDLproject will support CENL in contributing its influence to finding solutions at the European level on policy issues crucial to the development of the European digital library.

Jill Cousins, Director of The European Library, gave an overview of The European Library organisational structure and services, presented the core tasks of EDLproject and drew a vision of a future European digital library: which pieces are needed to complete the European digital library jigsaw? Her talk was complemented by presentations by Eric van der Meulen and Sally Chambers on the technology of The European Library portal and the metadata aspects of the service.

Jill proposed two levels of possible cooperation between The European Library and other projects:

The first level would include integration of services developed in these projects in the technical infrastructure of The European Library (e.g. by using web service technologies, defining APIs etc.). A possible scenario would also be linking to specific projects and services from The European Library portal. A very important building block for cooperation is defining tasks where The European Library could work together with projects on specific issues which are relevant for both parties, thus removing possible duplication of work.

The second level would mean being part of a future European digital library. This will involve not only technical issues but will require working out concrete scenarios and defining the

¹⁷ <http://www.edlproject.eu>

organisational and governance structure of such an undertaking. Jill presented possible organisational models for a European digital Library: 1) A network of networks; 2) The Society Publishing model; 3) An expansion of CENL, affiliating also non-National Library members. The model most favoured currently by The European Library and CENL is that of the society publishing model as it allows organisations and associations to go at their own pace so the slower ones are not forcing the pace of the faster ones but the aim is ultimately the same to provide access to all in one place. A Society Publishing Model is where an academic publisher publishes on behalf of societies. Each society contracts to the publisher, often in slightly different ways, i.e. just its publications or both publications and its own web presence. The publisher can represent the journals as the society requires or the society does this themselves, but the journals are also taken into the publishers own main publishing site, so that they maybe searched seamlessly by the end user. In this model the European digital library is the publisher, and each entity such as CENL / The European Library is the journals. All are able to deliver metadata into central repository. Each entity / journal remains an independent unit with its own representation and content, but must contribute to the EDL website, in agreed ways. A full break down of some possible organizational or governance models can be seen in Appendix 1.

The opportunities The European Library can offer to other projects when cooperating in EDLproject include using The European Library as a test base for their services, employing the TEL Application Profile to increase the metadata interoperability and the use of The European Library as a route to market and publicity. Cooperation could result in new routes to new content for The European Library and a future European digital library, new technical solutions, and advancements in interoperability of services and metadata.

During the workshop a number of concrete tasks for cooperation have been discussed, including:

- EDLproject will further support the exchange of information between eContentplus projects, inter alia by offering the EDLproject Website as a platform to publish the project results of all projects. The EDLproject blog can be used to discuss issues like interoperability, governance models etc.
- Liaison with Minerva EC to further advance the process started in this workshop
- A strengthening of bilateral contacts between The European Library and the workshop partners
- More minds making lighter work by sharing of knowledge and research in the areas of historical geographical names and multilingualism
- The European Library will provide a test version of its portal through EDLproject, by the end March 2007, to the workshop partners which could serve as a test bed both for experimenting with new services and for expanding The European Library
- The European Library and the eContentplus projects will elaborate scenarios and technical specifications for the creation of web services by participating data providers and services providers
- The European Library and the eContentplus projects will investigate interfaces to provide The European Library service as web service to other services
- The European Library and the other projects represented in the workshop will investigate the building of new networks for cross sectoral searching (e.g. architecture information from across both libraries and archives)

- The European Library will investigate joining organisations such as MELT and LRE¹⁸ (Learning Resource Exchange)
- The project presentations as well as results of this workshop will be published on the EDLproject website and made available for all projects

DIGMAP¹⁹

Discovering our Past World with Digitised Historical Maps

Presentation by José Borbinha, Instituto Superior Técnico, Lisbon

http://www.edlproject.eu/downloads/DIGMAP_FirstEDLprojectWorkshopVienna_Nov2006.ppt

DIGMAP will develop a solution for flexible services for registering, searching and browsing in collections of digitised historical maps. DIGMAP supports the registering of maps by their geographic boundaries and allows classifying, index, searching and browsing them with the support of multilingual geographic thesauri. The system will also take advantage of any available descriptive metadata to improve the search and browse,

DIGMAP proposes also advanced features for the automatic indexing of historical maps, in order to make it possible to add to the collections and process new maps. This can be reached by comparing, at the image level, the new maps with the rest of the collection. New image processing techniques will be tested for this purpose, as this requires much more than simple image comparing.

The DIGMAP infrastructure can be used as a local digital library of maps, as a standalone system, or as a component integrated within a service network (managed for example by a portal management system). It will gather and develop reusable open-source technologies for digital libraries (catalogue and thesauri management, algorithms for image feature extraction, solutions for interoperability, metadata transformation etc.) and promote the development of collaborative European networks for description, cataloguing and classification of ancient maps. It will be based on open data models and will be interoperable with remote systems via web services.

José Borbinha highlighted that DIGMAP can serve as a reference case for The European Library as the system will not only be fully compliant with The European Library application profile but also demonstrate innovative ways of service integration and interoperability.

Several collaboration scenarios with The European Library were identified:

- Integration of DIGMAP Content as “browsable collections” in The European Library
- Where The European Library members and those of DIGMAP are the same, The European Library compliant metadata will be possible and therefore searching directly in DIGMAP from The European Library should be feasible. This will be investigated
- Integration of DIGMAP services via web service technologies The European Library

¹⁸ http://insight.eun.org/ww/en/pub/insight/interoperability/learning_resource_exchange.htm

¹⁹ <http://www.digmap.eu/>

Bernstein²⁰

The Memory of Papers. Collaborative systems for paper expertise and history

Presentation by Emanuel Wenger, Austrian Academy of Sciences, Vienna

http://www.edlproject.eu/downloads/Bernstein_FirstEDLprojectWorkshopVienna_Nov2006.ppt

The objective of Bernstein is to create an integrated European digital environment for the expertise and history of paper. The project will interlink all existing European databases of paper reproductions, make their content accessible to specialized image processing tools for the measurement of paper features, and provide a multilingual interface to the digital resources of domains related to paper studies or by which the knowledge about papers can be enriched and contextualized.

The project will aggregate paper related data and tools, consisting of images, metadata (on paper and documents), contextual data (bibliographies, incunabula catalogue ISTC, historical geographical data) and content processing software (image processing software, measurement tools, statistics programs).

In his presentation Emanuel Wenger stated the need for making metadata from different repositories interoperable. Multilingual and multi-script support for software user interfaces, query, data content and documentation from The European Library would be appreciated. Bernstein is co-operating with many European CH institutions and several European National Libraries and would be very interested in a close cooperation with The European Library.

Collaboration scenarios with The European Library identified in the workshop include:

- Mapping of the TEL Application Profile and existing paper metadata
- Considering the TEL Application Profile when looking for a standard to describe paper
- Creation of collection descriptions of the Bernstein databases and linking them from The European Library portal as “browsable collections”
- Addition of a theme to The European Library theme list
- Aim: making the Bernstein databases searchable via The European Library

MACE²¹

Metadata for Architectural Contents in Europe

Presentation by Stefan Apelt, FIT Fraunhofer Institute for Applied Information Technology, Sankt Augustin

http://www.edlproject.eu/downloads/MACE_FirstEDLprojectWorkshopVienna_Nov2006.ppt

MACE sets out to transform the ways of e-learning about architecture in Europe. It will integrate vast amounts of content from diverse repositories created in several former large projects and build a framework for providing community based services such as finding, acquiring, using and discussing about e-learning contents that were previously not reachable.

²⁰ <http://www.bernstein.oeaw.ac.at/>

²¹ <http://www.mace-project.eu>

MACE will build an infrastructure for accessing architectural content distributed across Europe. Users will be able to search for and acquire content in different languages by using one single access point, preferably a web-based portal. Different types of metadata will be used for tagging contents: Traditional content metadata and ontologies, context metadata, usage related metadata and metadata acquired through social interaction, e.g. recommendations by peer users or blog entries. The project will address the resulting multicultural and multilingual issues resulting thereof and create working solutions for sharing contents across borders.

Cooperation scenarios with The European Library include:

- Investigate reuse of MACE recommendation and annotation web services for The European Library
- Investigate integration of the MACE metadata repository which will be built up during the project in The European Library (MACE Service Widget and federated search and access)
- Provide collection description for collections within MACE and make them available as browsable collections in The European Library
- Exchange information on multilingual issues
- Investigate how the TEL Application Profile can be used in MACE

MELT²²

Metadata Ecology for Learning and Teaching

Presentation by Davic Massart, European Schoolnet (EUN), Brussels

http://www.edlproject.eu/downloads/MELT_FirstEDLprojectWorkshopVienna_Nov2006.ppt

MELT involves 12 Ministries of Education/regional authorities (or organisations representing them), both commercial and non-profit developers of learning content, major learning content repositories, leading researchers into semantic interoperability and experts in large-scale school validations. The partners will bring together a critical mass of existing educational materials which they will enrich with semantically well-defined metadata. Metadata will be added to MELT content both by partners themselves and by teachers.

MELT will explore the synergy between metadata added (before use) by expert indexers and a metadata gathered (after use) from both teachers/learners and machines. A key goal is to enrich the available content with metadata that reflects the actual use of each resource by teachers/pupils in different learning contexts in order to support the wider use of this content and the development of the European content market. New approaches to social tagging and 'folksonomies' will be used so that teachers may add their own metadata to MELT content and a framework for automatic metadata generation will further increase the quantity of MELT metadata.

A number of cooperation possibilities have been identified in the workshop, including:

- Include the MELT service as search target in The European Library
- Make The European Library metadata searchable within MELT

²² http://info.melt-project.eu/ww/en/pub/melt_project/welcome.htm

- Exchange information on technology and architecture of systems and compare approaches
- Investigate possible reuse of the MELT content enrichment approach for The European Library
- Provide MELT collection descriptions to make MELT content accessible as browsable collections in The European Library
- Exchange information on multilingual issues
- Provide The European Library Use Cases to IMS SIG to help finding solutions to the issues of federated search

CITER²³

Creation of a European History Textbook Repository

Presentation by Dieter Pfoser, Research Academic Computer Technology Institute, Patras
http://www.edlproject.eu/downloads/CITER_FirstEDLprojectWorkshopVienna_Nov2006.ppt

The objective of CITER is to create a digital European history textbook base by integration of the already existing material of European publishers. The integration is achieved by introducing language independent metadata schemata based on space (locations), time (dates), and thematic categories. The specific metadata corpora defined in this project will be a European thematic ontology for history concepts and a multilingual location corpus.

In his presentation Dieter Pfoser stated that CITER includes a multilingual corpus of geo-referenced historic place names and language-independent categorizations of historical concepts. The history textbook repository will provide technology for automatic parsing of textbook content, i.e. identifying and linking of spatial, temporal and thematic metadata hints. It will contain a high quality machine translation service for history content which will be combined with a multi-language history ontology. A web based tool will provide access to the aggregated history content, allowing for spatial, thematic and temporal querying. One major objective of the project is to obtaining a multi perspective view of history.

A number of collaboration scenarios with other eContent^{plus} projects were identified in the workshop, including DIGMAP (geographic data, metadata compilations), MELT (educational scenarios, evaluation), and EDL (ontologies, automatic translation technology)

Cooperation possibilities with The European Library include:

- Providing a collection description for the CITER content and linking from The European Library to the CITER portal
- Supplying The European Library with the metadata of textbooks used in the project
- The European Library will investigate if CITER History ontology would be re-useable for TEL

²³ <http://citer.cti.gr/>

JEM²⁴

Joining Educational Mathematics

Presentation by José Francisco Rodrigues, University of Lisbon

http://www.edlproject.eu/downloads/JEM_FirstEDLprojectWorkshopVienna_Nov2006.ppt

The goal of the JEM thematic network is to pool expertise and contribute to the coordination of content enrichment activities in the area of mathematics, to the maintenance of agreed standards and to the delivery of powerful synoptic high-quality user information and support pages, invoked in e-learning platforms operated by the partners. These activities will have tremendous long-term benefits for the quality of e-learning in mathematics in Europe and the wider world.

In his presentation José Francisco Rodrigues proposed an organised exchange of information between The European Library and the European Mathematical Information Service.

Cooperation possibilities with The European Library include:

- Adding a JEM Collection description to The European Library portal
- Linking from The European Library to the European Mathematical Information System for mathematical content (EMIS)
- Possibly integrate the mathematical e-learning content created by JEM into The European Library

DISMARC²⁵

DIScovering Music ARChives

Presentation by Martin Gordon, Rundfunk Berlin-Brandenburg, Berlin

http://www.edlproject.eu/downloads/DISMARC_FirstEDLprojectWorkshopVienna_Nov2006.ppt

DISMARC uncovers large amounts of under-exposed European cultural, scientific and scholarly music audio. Content providers – archives, broadcasters, museums, universities, research institutes, private collectors – will be able to open up their collections to the wider world. DISMARC will create a significant catalogue of original material while strengthening the pan-European archive infrastructure. DISMARC collects metadata from participating archives, maps it to a DISMARC protocol and stores it securely. By browsing this store, users will be able to search all participating archives simultaneously.

Metadata of the DISMARC partner database will be mapped against the DISMARC Vocabulary. It will then be harvested and made available to users via the DISMARC metastore. This metastore will allow multilingual access via a DISMARC browser and contain a variety of embedded software tools for online rights queries and licensing options. DISMARC data will also provide APIs allowing external services like The European Library to query the data.

²⁴ <http://www.jem-thematic.net/>

²⁵ <http://www.dismarc.org/>

Martin Gordon stressed that the DISMARC metadata schema is based on the TEL Application Profile and is thus already fully compliant with the metadata requirements of The European Library.

The following cooperation scenarios have been discussed in the workshop:

- DISMARC metadata is already compliant to the TEL Application Profile
- The European Library will investigate reactivating some suspended fields in its Application Profile concerning elements which are required by DISMARC
- DISMARC will provide a collection description for the portal and integrate DISMARC as browsable collection
- DISMARC and The European Library will investigate how The European Library objects could be found via the DISMARC portal and vice versa

Video Active²⁶

Creating Access to Europe's Television Heritage

Presentation by Johan Oomen, Netherlands Institute for Sound and Vision, Hilversum and Alexander Hecht, Austrian Broadcasting Corporation (ORF), Vienna

http://www.edlproject.eu/downloads/VideoActive_FirstEDLprojectWorkshopVienna_Nov2006.ppt

The major aim of Video Active is to create access to television archives across Europe. The unlocking of these (largely) closed archives will make their content freely available for educational and academic purposes, enabling an interactive discovery of television's cultural heritage. The project will achieve this by selecting 10,000 items of television archive content, which reflects the cultural and historical similarities and differences of television from across the European Union.

Video Active will provide targeted, enriched access to heterogeneous television collections and serve as a platform for all heritage organisations with moving image content. The archive content will be complemented with well-defined contextual metadata that comply with international standards of interoperability.

Cooperation between Video Active and The European Library offers huge potential for a European digital library. In the workshop several concrete cooperation scenarios were identified, including:

- Build a pilot to find out how the TEL Application Profile works for Video Active (object level), investigate possible additions to the TEL AP for video content
- Provide a collection description for Video Active and add it to The European Library browsable collections
- A high level of interoperability already exists (Video Active OAI-PMH compliancy, Dublin Core), interoperability tests will be performed
- Test integration of Video Active metadata in The European Library, allowing direct search on video content in The European Library
- Tools created / used by Video Active will be tested by The European Library for video collections available in libraries.

²⁶ <http://www.videoactive.eu>

Appendix 1: Governance / Organisational Scenarios for a European digital library presented at the CENL Annual General Meeting 2006 in St Petersburg

Definition of European digital library

Single Access point with 3 or 4 major programmes coordinating:

1. Access – website, technology, usability, multi-lingual, search, retrieval etc. Finding ways to access existing content.
2. Digitisation programme, digitising new content according to agreed standards to access point. Maybe from centres of digitisation excellence / best practice.
3. Preservation according to agreed standards – ensuring all the digitised content retrievable via the European Digital Library or held for other purposes is preserved for perpetuity.
4. Legal issues – copyright, governance, finance

Able to deliver integrated search results to the user across many different media and subjects.

This does not mean that all current preservation or digitisation projects need to deliver into the European digital library, more that anything using the European digital library programme should also be prepared to create the content to standards required and allow its access.

Possible Organisation Structures

Scenario 1: Networked Group of Interested Sectors: Each group proceeds at its own pace, able to incorporate search of the other groups in its site, but not responsible for the availability of data from others. A steering group, made up of the nominated chairs or leaders of each sector meets regularly to discuss synergies and use of the technical developments of each sector. There would be a need for a coordinating role and a cross sector technical working group. This would require the creation of several interfaces between the various systems and the incorporation of tools such as a European Metadata Registry with cross walk. Digitisation is at sector level, as is preservation. Legal issues could also be taken into the steering group.

Pluses:

- Each partner autonomous
- No change in governance for each area
- Cheap to implement at start
- No financial burden from other participants.

Minuses:

- Poor user experience
- Doesn't deliver what the i2010 Digital Libraries programme wants
- Difficult to publicize as a whole
- Possibly expensive overall to maintain

Scenario 2: Society publishing model – Several academic publishers publish on behalf of societies. Each society contracts to the publisher, often in slightly different ways, i.e. just its publications or both publications and its own web presence. The publisher will represent the journals as the society requires, but it also takes them into the main publishing site, so that they maybe searched seamlessly by the end user. In this model the European digital library is the publisher, and each entity such as CENL / The European Library are the journals. All are able to deliver metadata into the central repository. Each entity / journal remains an independent unit with its own representation and content, but must contribute to the European digital library website, in agreed ways. European digital library, the publisher would be run by a Managing Director, with a Management Board covering expertise in Technology, Business Development, Marketing and Finance. The board has several executive directors composed of the directors of the different societies. The technology could be a skins and skeleton model – so for areas with little developed the technology could be the same as for the European digital library but a different skin or front end is easily added if needed.

The central repository uses the tools and search engines required to deliver the information across all the 'libraries' to the user. Digitisation and preservation can be at journal or publisher level.

Pluses:

- Creates good decision making structure
- Leaves magazines or current websites alone
- Presents a united front
- Good user experience
- The entities can remain separate or not, depending on what happens.

Minuses:

- Difficult to satisfy the needs of all in one system
- Who pays for the super structure?

Scenario 3: The European Library takes total control: The European Library opens doors to new partners outside of CENL. Uses the technology in place, develops new services to cope with new media types where necessary, aiming on creating a new architecture in 2–3 years to streamline the user experience. CENL would have to change its foundation remit but governance continues to be in the same form, but with new members.

All partners pay, all must submit their metadata to a central repository. The TEL Application Profile would need to broaden to encompass other schemas, or crosswalks put in place.

Pluses:

- “Total control”
- Payment structure could remain valid
- Knowledge of TEL Office

Minuses:

- Other areas will not like being “forced” into The European Library
- Unwieldy too many cooks, difficult to achieve consensus



- Is the foundation able or willing to open its doors.
- User experience likely to be slow to improve
- Legality of opening doors
- The European Library could implode
- Difficult to see where preservation & digitisation fit

Appendix 2: Workshop Participants

Project	Name	Organisation
BERNSTEIN	Vlad Atanasiu	Austrian Academy of Sciences, Commission for Scientific Visualization, Vienna
BERNSTEIN	Emanuel Wenger	Austrian Academy of Sciences, Commission for Scientific Visualization, Vienna
CITER	Dieter Pfoser	Research Academic Computer Technology Institute, Patras, Greece
DIGMAP	José Borbinha	Instituto Superior Técnico, Lisbon
DISMARC	Martin Gordon	Rundfunk Berlin-Brandenburg, Berlin
DoD	Günter Mühlberger	Innsbruck University Library
EDLproject	Sally Chambers	The European Library Office, The Hague
EDLproject	Jill Cousins	The European Library Office, The Hague
EDLproject	Sigrid Freisleben	Austrian National Library, Vienna
EDLproject	Thomas Huber	Austrian National Library, Vienna
EDLproject	Max Kaiser	Austrian National Library, Vienna
EDLproject	Nina Knieling	Austrian National Library, Vienna
EDLproject	Eric van der Meulen	The European Library Office, The Hague
EDLproject	Jan Mokre	Austrian National Library, Vienna
EDLproject	Hans Petschar	Austrian National Library, Vienna
EDLproject	Monika Segbert	Eremo s.r.l., Cupramontana
EDLproject	Alexander Sperl	Austrian National Library, Vienna
EDLproject	Willy Vanderpijpen	Royal Library of Belgium, Brussels
EDLproject	Britta Woldering	German National Library, Frankfurt
JEM	José Francisco Rodrigues	University of Lisbon
MACE	Stefan Apelt	FIT Fraunhofer Institute for Applied Information Technology, Sankt Augustin
MELT	David Massart	European Schoolnet (EUN), Brussels
MINERVA	Antonella Fresca	MiBAC (Italian Ministry of Culture), Pisa
Video Active	Alexander Hecht	Austrian Broadcasting Corporation (ORF), Vienna
Video Active	Johan Oomen	Netherlands Institute for Sound and Vision, Hilversum