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Bernstein

Progress Report

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eContentplus

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¹ OJ L 79, 24.3.2005, p. 1.

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2 Summary

The first half year of the project was characterized by the project start procedure, intensive dissemination activities, use case investigation and selection of the integration model and data models.

The project start consisted of a two-days kick-off meeting in Paris with the full consortium of the project and guests and a one-day kick-off meeting in Luxembourg. These meetings determined the program for the first half year.

It was decided to formulate the fundamental functions of the Bernstein system by defining an all encompassing set of situations faced by users or 'use cases'. These use cases are intended to define the ways a user would want to interact with the system, the situations within which they would wish to do this and how they would like the results presented.

An integration model and two data models have been proposed based on the result of the use case investigation and the analysis of the differences and similarities of the four databases. As first step the databases were harmonized and the nomenclature standardized in German, English and French.

The cross-link between the "Watermarks in Incunabula printed in the Low Countries" (WILC) and the "Incunabula Short-Title Catalogue" (ISTC) has been implemented and tested.

An inventory of available software for automatic identification and matching of both paper structure (laid and chain line features) and watermarks (work in progress) was done as well as the identification of relevant digital resources and input material (X-ray, backlight, rubbings, tracings etc.).

Project web pages, a project folder, a poster, press releases, information meetings, participation and reporting at conferences and an exhibition are part of the dissemination activities.

3 Status

The project start took place in Paris and Luxembourg at a three-days kick-off meeting, begin of September 2006. The meeting in Paris brought together the full Bernstein consortium (25 scientists) and a couple of guests (Paola Munafo – Istituto centrale per la patologia del libro; Victor Karnaukhov – Russian Academy of Sciences; Robert Allison – Bates College; Peter Tschudin – IPH; Martin Kluge – Basel Papermill; John Goldfinch – British Library; Robert Giel and Werner Klarkowski – Staatsbibliothek Berlin). One essential decision was that a use case investigation will be at the begin of the work. The use cases are the main input for the design and decision about the integration model.

Twiki, a structured wiki, is used as project management and communication system. Wiki is a shared whiteboard that allows users to add, remove, or otherwise edit all content very quickly and easily. Web content can be created collaboratively by using just a browser over the internet. The Bernstein Twiki pages (www.bernstein.oeaw.ac.at/twiki) are open for everybody who is willing to register. The pages contain all documents, contact addresses, deliverables,

contracts, progress reports, work packages, meetings, discussion forums, paper links etc. Additional to Twiki, a mailing list (<u>BERNSTEIN-L@NIC.SURFNET.NL</u>) for communication and discussion has been installed.

The Bernstein webpage <u>www.bernstein.oeaw.ac.at</u> informs about the project in general. The webpage has been the first deliverable. A poster and a folder (in English and German) have been designed to attract the attention for Bernstein and forward information about the project and the consortium. Both are made for distribution at conferences, exhibitions, and meetings. The poster (<u>http://www.bernstein.oeaw.ac.at/papers/project_poster2006_en.pdf</u>, half of A1) and the folder (<u>http://www.bernstein.oeaw.ac.at/papers/project_folder2006_en.pdf</u>, 6.7 MB!!!!, A4 folded) are available as pdf-files from the internet, too. A press release (see Twiki/Documents/Dissemination/Documents) in English and German and a PowerPoint presentation (deliverable no.2, Ref.D6.2) complete the dissemination documents.

Several information events for interested institutions (libraries, university institutes, museums, etc.) took place in Austria and Germany (for more details see Chapter 4. Awareness and Dissemination).

Representatives of Bernstein together with representatives of a number of projects funded by eContentplus took part in the EDLproject workshop organised by the Austrian National Library in Vienna on 27/28 November 2006 on behalf of *The European Library* (TEL) and CENL (*Conference of European National Librarians*) in order to discuss practical collaboration between them to support the development of the "European digital library" as envisaged by the "i2010 digital libraries" initiative 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. Two levels of possible cooperation between The European Library and other projects were proposed. In the first instance, it was agreed that cooperation will be with the projects that provide digital content including Bernstein. The aim will be to make the Bernstein databases searchable via The European Library.

The first big meeting after the kick-off was organized in Stuttgart in December 2006. Main purpose of this meeting was the preparation of the integration blueprint.

The most important milestone in the first half year is the integration blueprint. The blueprint is based on an identification survey about the user requirements and use cases. The fundamental functions of the system have been defined by an all encompassing set of use cases.

Use cases relate to the integration of the systems component databases, the types of search the system will be required to support, the display mechanisms and formats required, and various statistical methods for processing the results to provide further information.

The databases could be integrated via a distributed approach, which would link the current databases to each other or by a centralised approach that would export all of the data into one central database. A combination of these two approaches will be used in the Bernstein project. Data will either be exported from the original databases and stored in separate centralised databases on a system local to the Bernstein interface or the Bernstein interface will link to the databases at their host institutions. That interface will also link the tools required for statistical analysis and link to any external databases required such as the ISTC and the bibliographic databases.

The information present on the current databases will be mapped to each other, this will ensure that a Bernstein user will be able to search for all watermarks currently catalogued in various databases within one workspace. A subsection of watermarks will be reclassified in terms of the component objects. This additional description will ensure that all user situations that have been defined will be supported.

As first step for the integration the terms of the two German databases were brought into line. The maingroups of watermarks of WZMA were harmonized with Picccard Online, also in terminology. For example the so far as maingroups defined different tools and weapons (Amboß, Bogen, ...) were summarised in one group "Werkzeuge/Waffen" like in Piccard Online. The new version of WZMA will show the results. For WILC a similar procedure is in progress. The WILC thesaurus has been adjusted with the English vocabulary of Piccard.

Piccard online is already available in three languages, German, English, and French.

An important milestone was the implementation of the cross-link between the "*Watermarks in Incunabula printed in the Low Countries*" (WILC) and the "*Incunabula Short-Title Catalogue*", which provides relevant contextual information to both databases.

So far, there are no essential deviations from the Description of Work. The scheduled tutorial in Fabriano in July 2007 was cancelled and transformed into a public exhibition in the paper and watermarks museum there. It appeared that it is too early in the project to present the results of what we're doing, especially digital tools.

Resources	employe	d for the	reporting	g period (p	erson-mo	nths)		
Beneficiary	WP 01	WP 02	WP 03	WP 04	WP 05	WP 06	WP 07	TOTAL
short name								
COO	2.0	10.0	1.0	0.3	0.4	2.0	6.0	21.7
(OEAW)								
LABW	3.0	4.0	0.0	0.0	0.0	1.0	0.0	8.0
TUG	9.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0
LAMOP	0.0	3.5	0.0	6.5	0.0	0.0	0.0	10.0
DNB	3.0	0.0	0.0	1.5	0.0	0.2	0.0	4.7
NIKI	1.6	2.0	0.2	0.0	1.8	1.4	0.0	7.0
DUT	1.5	1.0	3.5	0.0	0.0	0.5	0.0	6.5
KB	2.5	0.0	0.0	1.0	0.0	0.2	0.0	3.7
LU	2.5	0.4	0.0	0.3	0.0	0.0	0.0	3.2
TOTAL	25.1	20.9	4.7	9.6	2.2	5.3	6.0	73.8

3.1 Resources employed

3.2 Work Package Overview

Work package description

Work package number :	01	Start date:	Sept. 2006	End date:	Feb. 2009
Work package title:	Integrated worksp	ace			

Objectives for the period

O1.1 Integrate resources

O1.2 Connect components

O1.3 Interpret content

O1.4 Emerging knowledge

O1.5 Assist users

Milestones: m1.1 / during month 4 – Decision taken on the integration models to be used in the project

Deliverables: D 1.1 / m5: Integration blueprint

Description of work carried out and achievements

T 1.1: Integration models:

- Investigation of the existing databases and collecting information for database integration
- Identification of conceptual models for an intelligent management of the digital resources
- Inventory of available software for automatic identification and matching of both paper structure (laid and chain line features) and watermarks (work in progress)
- Discussion of integration architecture identification of several conceptual models
- Analysis and description of the database structure
- Researching possibilities to convert the MS Access structure to XML
- Gathering and providing information for the technical people of Bernstein

T 1.2: Workspace architecture & implementation:

- Proof-reading of Piccard (Waage, Dreiberg, Werkzeuge und Waffen) and Zonghi metadata
- Considerations to potential workspace architecture
- Identification of integration strategy for ISTC KB (WILC)
- Gathering and providing information for surface linking with Stuttgart and WZMA
- Gathering information for WILC and Piccard-Online harmonization
- Investigation of the use of Briquet numbers for database linking
- Pilot webpage for possible integration model for the databases

T 1.3: Upgrading of databases & tools:

- Preparation of use cases
- Preparation of WZMA-data for TUG

- Working on a program for creating PDF-files where the images are connected to metadata
- Converting watermark images to 100 dpi
- Schema of bibliographical database
- Use cases for bibliographical and watermark research
- Use case: actualisation of 'Piccard' database
- Use case: bug fixing in PDF-generator and search engine
- Adaptation of NIKI database (new DB-interface)
- Inventory of available software for automatic identification and matching of both paper structure (laid and chain line features) and watermarks
- Collection and analysis of use cases

Deviation from work plan & remedial action

Work package number :	02	Start date:	Sept. 2006	End date:	Jan. 2009
Work package title:	Enhancing content	usability			

O2.1 Develop standards for paper description

O2.2 Provide multi-lingual access

O2.3 Complete metadata coverage

Milestones:

 $M2.1\ /\ m5$ – Definition on the format type for numerical description standards $M2.2\ /\ m5$ – Definition on how the multi-language support across systems will be implemented

Deliverables: No deliverables in this evaluation period

Description of work carried out and achievements

T2.1: Standards for paper description

T2.1a: Textual watermark description standard:

- Coordination of the imprint variability experiment
- Coordination of the component model for database integration
- Creating of new webpages: <u>http://www.ksbm.oeaw.ac.at/wzrep/briquet.htm</u> (therefore measurements for about 8000 images); <u>http://www.ksbm.oeaw.ac.at/wz/lit/rep.htm</u>
- Preparation and organisation of WP-2 meeting, held in Stuttgart, Germany, December 2006, composition of minutes of the meeting
- Comparison of the watermark main groups between Piccard-Online and WILC
- Harmonization of WILC thesaurus with the English vocabulary of Piccard
- T2.1b: Numerical paper description standards:
 - Identification of paper features to be measured
- T2.2: Multi-lingual access

T2.3: Metadata for integration:

- T2.3a: Geographical & chronological metadata:
 - Increasing and updating of a general incunabula database for statistical purposes to link with watermarks databases and use with the new GIS (Graphic Interface Software (Formatting data about medieval authors printed in incunabula work in progress)
- T2.3b: Repertories concordances:
 - Increasing the unified watermark database on the Web. Input and formatting of textual data about images previously digitized (Briquet, Heitz)
 - Watermark databases integration on the Web: methods to retrieve quickly one watermark or specific groups of watermarks in a huge database Analysis of motif "bull's head"

Deviation from work plan & remedial action

None

Work package number :	03	Start date:	Sept. 2006	End date:	Jan. 2009
Work package title:	Infrastructure for	paper expert	ise		

Objectives for the period

O 3.1 Authentication & identification capability

O 3.2 Multi-feature expertise

Milestones: No Milestones during this report period

Deliverables: No deliverables during this report period

Description of work carried out and achievements

T3.1: Features enhancement:

- Wrote wm-scissors for segmenting pages from watermark repertories containing several watermarks into individual images of watermarks (see page ImageProcessing on the TWiki)
- Evaluation of wm-scissors by LABW
- Inventory of available software for automatic identification and matching of both paper structure (laid and chain line features) and watermarks (work in progress)
- Identification of relevant digital resources and input material (X-ray, backlight, rubbings, tracings etc.)
- Enhancement and extension of automatic methods for automatic paper analysis, especially those for chain line enhancement and detection, developed by DUT within the framework of the Rembrandt- and CAAS-projects of NWO and DUT-Leiden University cooperation

T3.2: Features measurement:

• Identification of paper features to be measured

T3.3: Authentication & identification module:

- Wrote mark2file for obtaining coordinates lists of landmarks in watermarks (see page ImageProcessing on the TWiki)
- Worked on new version of AD751 software for laid lines density measurements
- Worked on automatic measurement of image features in hand drawn paper reproductions
- Dating written documents by watermarks and imprint of the mould (a new algorithm based on morphometric properties of watermarks and laid lines density)
- An experimental test about random or systematic variations of the imprint of the mould in paper sheets (Fixing details of the procedure work in progress)
- Use case for user front-ends
- Starting the development of methods for automatic watermark detection (in cooperation with a MSC student from Spain within the Erasmus-exchange framework)

Deviation from work plan & remedial action

Work package number :	04	Start date:	Sept. 2006	End date:	Jan. 2009
Work package title:	Contextual resour	ces for paper	history		

O4.1 Paper-incunabula integration

O4.2 Statistical capability

O4.3 Cartographic visualization

O4.4 Data-references interlinking

Milestones: No milestones in this evaluation periode

Deliverables:

D4.1 / m5: Paper-incunabula cross-linking: Hyperlinks cross-linking WILC and ISTC.

Description of work carried out and achievements

T4.1: Paper-incunabula integration:

- The cross-link between the "Watermarks in Incunabula printed in the Low Countries" (WILC) and the "Incunabula Short-Title Catalogue" (ISTC) has been implemented and tested
- T4.2: Numerical & graphical statistics

T4.3: Historical cartography of paper

T4.4: Bibliographical referencing of data

• Bibliographical data for expertise and image processing

Deviation from work plan & remedial action

Work package number :	05	Start date:	Sept. 2006	End date:	Feb. 2009
Work package title:	Assessment and ev	aluation			

O5.1 Progress monitoring / Quality certification O5.2 Impact evaluation

Milestones: M5.1 m5: Periodical monitoring M5.2 m5: Periodical evaluation-feed-back-cycles

Deliverables: none

Description of work carried out and achievements

T5.1: Monitoring

• Monitoring report over the first 4 months (January 2007, see TWiki)

T5.2: Validation

T5.3: Evaluation:

• Planning evaluation form

Deviation from work plan & remedial action

Work package number :	06	Start date:	Sept. 2006	End date:	Feb. 2009
Work package title:	Accessibility, disse	mination and	l sustainabil	ity	

O6.1 Accessibility O6.2 Dissemination O6.3 Sustainability

Milestones: M6.1 / m4: Project's public and internal website is functional.

Deliverables:

D6.1: m1 – Project web site D6.2: m3 – Project Presentation D6.3: m5 – Graphical image

Description of work carried out and achievements

T6.1: Accessibility ([1] Ergonomics, [2] Graphics, [3] Documentation):

- Contributions to handbook
- DB-test as a user
- User guideline image subtraction

T6.2: Awareness, dissemination & exploitation ([1] Awareness, [2] Dissemination, [3] Exploitation):

- Website Bernstein: <u>www.bernstein.oeaw.ac.at</u>,
- Website TWiki: <u>www.bernstein.oeaw.ac.at/twiki</u>
- Completed the "graphical image"
- Presentation document of the project (multimedia PowerPoint presentation, folder and poster)
- Website LABW: http://www.landesarchiv-bw.de/bernstein
- Preparation of watermarks- and Bernstein exhibition "Ochsenkopf und Meerjungfrau" in the Central State Archive Stuttgart, Germany
- Preparation of an exhibition catalogue
- Advertising text and summary of the contents of the exhibition for promoting the exhibition "Ochsenkopf und Meerjungfrau" as touring exhibition
- Presentation about the Bernstein-project and image subtraction method on the 15th meeting of restorers in the Kupferstich-Kabinett Dresden, Germany
- First contacts about collaboration with British Museum London, Koniklijke Museum Brussels and Kunstmuseum Basel about watermarks
- Website DNB: <u>http://www.d-nb.de/wir/projekte/bernstein.htm</u>
- Newsletter Deutscher Arbeitskreis für Papier (DAP): 210 digital copies, 170 paper copies (prepared November 2006, sent December 2006)
- DUT website on paper research: http://ict.ewi.tudelft.nl/index.php?option=com_sections&id=37&Itemid=97 (Webpage on activities within Bernstein in progress)

T6.3: Sustainability ([1] guidelines, [2] database-package):

• technical documentation about WILC

Deviation from work plan & remedial action

Work package number :	07	Start date:	Sept. 2006	End date:	Feb. 2009
Work package title:	Project manageme	ent			

O7.1 Keep the project on track

Milestones: M7.1: m1 – General meetings at the project's start and end of each project's year (Kick-off-meeting in Paris in Sept. 2006)

Deliverables: D7.1: m6 – Half-year progress report to the European Commission

Description of work carried out and achievements

T7.1: EU coordination

T7.2: Administrative affairs:

- Organisation of the kick-off meeting in Paris and Luxemburg
- Organisation of the tutorial (local preparedness in Fabriano, schedule of tutoring personel, program)
- Preparation webpage for WIES (Watermarks of Spanish incunabula Van Thienen)
- Organisation of the kick-off meeting in Paris
- Organisation of WP-2 meeting, held in Stuttgart
- Organisation of second Bernstein general meeting in Fabriano (contacting the local staff, visiting of local, preparation of tasklist)

T7.3: Financial matters:

• Money transfer to Bernstein partners

T7.4: Intellectual propriety rights (IPR)

T7.5: Information flow:

- Organisation of several workpackage meetings (integration, expertise)
- Administration of the TWiki and project website

T7.6: Public relations

• General proof-reading (folder, poster, lectures, ...)

Deviation from work plan & remedial action

3.3 Deliverables Status

Deliverable No ¹	Deliverable title	Delivery due date ²	Actual date of delivery
No. 1, D6.1	Project website	1	Sept. 2006
No. 2, D6.2	Project presentation (start version)	3	Dec. 2006
No. 3, D6.3	Graphical image	5	Jan 2007
No. 4, D1.1	Integration blueprint	5	Feb. 2007
No. 5, D4.1	Paper-incunabula cross-linking	5	Feb. 2007
No. 6, D7.1	Half-year progress report	6	Feb. 2007

Deliverables List

¹ Deliverable numbers in order of delivery dates: D1 – Dn. Deliverable numbers must indicate which workpackage they relate to, e.g. D2.1 for the first deliverable from workpackage 2).

² Month in which the deliverables will be available. Month 0 marking the start of the project, and all delivery dates being relative to this start date.

3.4 Performance Indicators

	Expected vs Actual					
Indicators	Year 1	Year 1 (act.)	Year 2	Year 2 (act.)	Year 3	Year 3 (act.)
Resources integration	(exp.) 33%	(act.)	(exp.)	(act.)	(exp.)	(act.)
Description standards	33%					
Multi-lingual support	33%					
Paper expertise	33%					
Statistics	33%					
Cartography	33%					
Bibliography	50%					
Dissemination kit	-					
Work progress notices	33%					
Software and documentation	33%					
Annual reports	33%					
Website hits (w)	w					
Citations and user feed-back (c)	с					
Participation in workshops (persons)	20 pers.					
Exhibition visitors (persons)	-					
New networked collections (n)	-					
Reuse of outputs (r)	r					

4 Awareness and Dissemination

4.1 Overview of awareness and dissemination activities

Dissemination is considered as one of the most important activities of the Bernstein Consortium. The Bernstein project can only be considered as successful, if Bernstein becomes the European platform for paper expertise which also attracts future providers of paper and watermark data to join the Bernstein initiative.

The main activities concentrated on informing potential user groups about the project and encourage them to cooperate as well as test and evaluate the intermediate results. The first step was to collect addresses and contact information of all potential users in Austria, i.e. institutions such as libraries, monasteries, art collections, museums and individuals such historians, musicologists, art historians, etc. These were invited to take part in three information meetings in Vienna (Austria) and Graz (Austria). Researchers from the Academy of Fine Arts in Vienna and the Kupferstichkabinett agreed to contribute as evaluators of intermediate results.

The LABW in Stuttgart (Germany) organised together with the OEAW an exhibition about medieval watermarks with the title "*Ochsenkopf and Meerjungfrau*" (bull's head and mermaid). This event is a link between a binational project belonging to the previous history of Bernstein and the eContenPlus project Bernstein. The exhibition will be transfered from Stuttgart (Germany) to Vienna (Austria) and then to further places in Italy, Great Britain, The Netherlands, Germany (2nd time) and France. The 70-page German catalogue of the exhibition will be translated into Italian and English.

The Bernstein home page (<u>www.bernstein.oeaw.ac.at</u>) and a wiki based collaboration platform, knowledge and document management system (<u>www.bernstein.oeaw.ac.at/twiki</u>) were developed for the dissemination of the project through the world wide web. Furthermore, a Bernstein poster and a project folder inform about the main aims, activities, targeted users and products of the projects. The folder should be distributed at conferences, exhibitions and special events. The folder is written in English and German.

At the *First EDLproject Workshop on developing the European Digital Library*, the project Bernstein was identified as an attractive eContentPlus project which should cooperate with TEL with the aim to make the Bernstein databases searchable via *The European Library*. The workshop was the first step for a close cooperation between both European projects.

A press release was made for APA (Austrian Press Agency) and an article in the Austrian daily journal "Die Presse" is to appear soon.

4.2 Events and meetings

List of Events & Meetings

Name	Location	Date
EXHIBITIONS:		
"Ochsenkopf und Meerjungfrau" – Wasserzeichen des Mittelalters	Stuttgart, Germany	Dec. 15 th , 2006- Feb. 2 nd , 2007
LECTURES / PUBLIC MEETINGS:		
Meeting with interested parties of the Academy of Fine Arts and the Prints and Drawings Colletion	Academy of Fine Arts, Vienna	Oct. 6 th , 2006
28 th IPH Conference	Capellades, Spain	Oct. 8 th , 2006
Meeting with cooperating partners of TU Graz and UB Graz	Graz University of Technology, University of Graz	Oct. 18 th , 2006
EVA Berlin, lecture about Bernstein	Berlin, Germany	Nov. 9 th , 2006
Presentation about the Bernstein-project and image subtraction method on the 15 th meeting of restorers in the Kupferstich-Kabinett Dresden	Dresden, Germany	Nov. 15 th , 2006
Bernstein-Informationshalbtag/Bernstein-open- day (9-12 a.m.)	Clubraum der ÖAW, Vienna	Nov. 23 rd , 2006
Fake and False in Art	Amsterdam, The Netherlands	Nov. 29 th , 2006
Poster session at International Conference Museums, libraries and archives online: MICHAEL service and other international initiatives	Rome, Italy	Dec. 4 th -5 th , 2006
Wiener Archäographisches Forum (WAF), General Meeting	Academy of Fine Arts, Vienna	Dec. 11 th , 2006
Authentication and Dating of Art on Paper, University of Nijmegen	Nijmegen, The Netherlands	Dec. 15 th , 2006
Watermarks/Bernstein exhibition flyers to Heidelberg Academy of Science and Heidelberg University Library	Heidelberg, Germany	Dec. 2006
Paper Retrieval – Towards the Reconstruction of Art History, Simpli 7	Delft, The Netherlands	Dec. 2006
Bildsubstraktionspräsentation Städelmuseum Frankfurt	Frankfurt, Germany	Jan. 26 th , 2007
Poster session at Eudico-Conference	Berlin, Germany	Feb. 21 st -22 nd , 2007
MEETINGS (Bernstein internal):		
Bernstein Kick-off meeting	Paris, France	Sept. 2006
Meeting at KSBM, ÖAW	Vienna, Austria	Oct. 10 th , 2007

Integration meeting	Paris, France	Dec. 1 st , 2006
Work-package-2-meeting	Stuttgart, Germany	Dec. 14 th -15 th , 2006
Work-package-1-(extra-)meeting	Vienna, Austria	Jan. 18 th -19 th , 2007
PRESS / SCIENTIFIC ARTICLES		
M. van Staalduinen, J.C.A. van der Lubbe, E. Backer, P. Paclik, Paper retrieval based on specific paper features: Chain and laid lines, Proceedings of International Workshop on Multimedia Content Representation, Classifictaion and Security, pp. 346-353.	The Netherlands	Sept. 2006
APA Press release	Austria	Oct. 23 rd , 2006
Das älteste Wasserzeichen stammt von 1271, Stuttgarter Zeitung	Stuttgart, Germany	Dec. 15 th , 2006
Catalogue of the (watermarks/Berstein) exhibition "Ochsenkopf und Meerjungfrau – Wasserzeichen des Mittelalters"	Stuttgart, Germany	Dec. 2006
Newsletter Deutscher Arbeitskreis für Papier (DAP): 210 digital copies, 170 paper copies	Germany	Dec. 2006
Was der Ochsenkopf verrät. Hauptstaatsarchiv zeigt umfangreiche Wasserzeichen-Sammlung	Stuttgart, Germany	Jan. 4 th , 2007
SPH Press article	Switzerland	To appear
Real and Fake in Art (J.C.A. van der Lubbe), Radboud Univ. (Newspaper article)	Nijmegen, The Netherlands	Jan. 2007
A masterpiece in numbers, in: Volkskrant	The Netherlands	Feb. 22 nd , 2007
TUTORIALS, WORKSHOPS:		
First EDLproject Workshop on developing the European Digital Library	Austrian National Library, Vienna	Nov. 27 th -28 th , 2006
Paper Retrieval using Specific Paper Features: Chain and Laid Lines, Kernel Combining Workshop	Delft, The Netherlands	Nov. 2006
Tutorial at Cambridge University Library – Methods of reproduction of paper structure	Cambridge, United Kingdom	Dec. 11 th , 2006
MISCELLANEOUS		
Bernstein poster LABW	Stuttgart, Germany	2006
Watermarks/Bernstein exhibition flyers to Heidelberg Academy of Science and Heidelberg University Library	Heidelberg, Germany	Dec. 2006

5 Conclusions

The work is in good progress and there are no deviations from the "*Description of Work*". The deliverables/reports scheduled for the first half year were sent. The three most important milestones were

- 1. project presentation (website, TWiki, mailing-list, multimedia power-point presentation, poster, folder),
- 2. paper-incunabula cross-linking,
- 3. integration blueprint.

The first half year was characterized by strong dissemination activities (exhibitions, meetings, lectures, papers, press releases) and as one result additional interested institutions (e.g. Academy of Fine Arts, Kupferstichkabinett Vienna a.s.o.) willing to cooperate were attracted. The next important step will be the "*General meeting*" in Fabriano with an exhibition and the forthcoming milestones "M2.3 first version of the watermark standard", "M4.1 first version of the integrated bibliography" and "M1.2 a demonstration version of the integrated workspace".