



europeana
connect



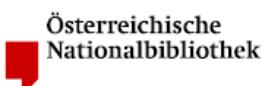
Report on the EuropeanaConnect Workshop on Place, Digital Cultural Heritage and the Internet 4th and 5th November 2010

Joachim Korb, AIT Austrian Institute of Technology
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eContentplus

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EuropeanaConnect is coordinated by the Austrian National Library

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Introduction

EuropeanaConnect is a Best Practice Network funded by the European Commission within the area of Digital Libraries of the eContentplus Programme. Its overall objective is to deliver core components which are essential for the realisation of Europeana, the European Digital Library as a truly interoperable, multilingual and user-oriented service for all European citizens.

EuropeanaConnect will also add the music dimension to Europeana by aggregating a critical mass of audio content.

On the 4th and 5th November 2010, the Workshop on Place, digital Cultural Heritage and the Internet took place at the [AIT - Austrian Institute of Technology](#). This workshop was the second of three workshops in EuropeanaConnect's work package 5 (WP5), Enabling and Integrating Services for Europeana. As part of the cross-project networking and clustering activities in EuropeanaConnect, these workshops are a means to bring together project partners, working on specific technologies, with participants from other projects, initiatives and organisations working in similar areas to exchange experiences, knowledge and views. The Workshop on Place, digital Cultural Heritage and the Internet was focused on GIS-related topics, i.e. the map annotation interface and the Gazetteer/Geoparser combination produced in WP5, and the Europeana mobile user interface, which is part of WP3.

The current workshop brought together 16 participants representing 9 Europeana-related and other projects, a number of (research) organisations and two SME. 12 of these presented the workshop topics from various angles, which led to interesting discussions and in turn to cross-fertilisation of ideas.

Day 1

Mapping Europeana

David Haskiya, Product Developer for Europeana and the Europeana Foundation's project liaison for the EuropeanaConnect and ASSETS projects, provided background information about the Europeana project, the vision guiding it and the cluster of projects supporting it with content and technologies. He also gave an overview of Europeana's winter 2010-2011 development programme (called the Danube programme) giving a picture of the main focus of development. Finally, he touched upon the geospatial aspects of Europeana in terms of the Europeana Data Model (EDM), enrichment of metadata to create geodata, end user functions allowing for spatial browsing of Europeana's content, and the Europeana search API. David's special focus in his presentation was on those parts of EuropeanaConnect that deal with places: the Mobile Interface, the Spacio-Temporal Interface (both WP3), the Gazetteer/Geoparser combination, and the map interface of the Annotation Tools. He also expressed the hope that more European digital cultural heritage objects would in the future come with geo-metadata and that Europeana would play a strong role in this.

Introduction to EuropeanaConnect

Joachim Korb is a project manager at the AIT - Austrian Institute of Technology, where he currently leads the EuropeanaConnect Project's Work Package 5, Enabling and Integrating Services for Europeana, and Task 5.9, Cross-project Networking and Clustering, of which this series of workshops is a part. He gave a general overview of the EuropeanaConnect project, its place-related tasks and on the workshop series. (See also the introduction to this report.)

Geographic Information in the Carare and Athena Projects

Franc Zakrajsek is a senior researcher and consultant on the areas of geographic information systems, GIS portals, GIS web services, digital cultural content, registering movable and immovable cultural heritage and building the national and cross-national interoperability frameworks. Franc has worked for both the Carare and the Athena projects on GIS-related topics. The main difference being that while Athena is mainly concerned with movable cultural heritage (e.g. objects in museums), Carare's focus is on immovable cultural heritage (e.g. architecture or archaeological sites) He gave a joint presentation presenting work done in both projects:

Athena

One important challenge of the Athena project is raising awareness of the GIS technologies' potential in the cultural sector, by introducing professional in that sector to fundamental GIS concepts and basic GIS terms. Franc introduced the Guidelines for geographic location of cultural content. These guidelines are intended for movable cultural heritage and have a special focus on aiding museums, libraries, archives and other cultural institutions, which are introducing geographic information system. The presentation described goals and use of standards of geographic information in digital cultural content, gave an overview of GIS use in Athena content, and presented possible geographic information system models and implementation.

Carare

The Carare project will bring digital information of immovable cultural heritage to Europeana. The geographic location is a core part of the data for these collections. Franc gave an overview of the draft Carare geographical metadata, showed the connections between [INSPIRE Directive](#) and the Carare project, and informed about survey results and examples on geographical information in Carare content.

There are few million architectural buildings and archaeological sites with known geographic coordinates in Europe. The work of the Carare project could provide Europeana with a critical mass of geographically located cultural heritage objects.

Spatial Navigation of Cultural Heritage

(Stein) Runar Bergheim is managing director of Asplan Viak Internet AS (avinet) and work package manager for the technical tasks in the EuropeanaLocal project. He gave an introduction into the work done within EuropeanaLocal and then related experiences from the use and re-use of spatial metadata in natural- and cultural heritage projects in Norway and across the North Sea region. His presentation included an overview of different practices in entry and maintenance of spatial metadata in legacy databases, approaches to spatial metadata enrichment, and then focused on

end-user interfaces using the spatial paradigm as a driver for exploration of cultural heritage. Runar related his points via the examples of the [GeoAtlas](#) and the [North Sea Trail](#) and [Cycle Route](#).

Preservation in Digital Cartography

Markus Jobst is technical coordinator for the implementation of the [INSPIRE Directive](#) at the Austrian Federal Office of Metrology and Surveying. Additionally, he lectures on cartographic interfaces and geospatial data infrastructures at the Vienna University of Technology and at the [Hasso Plattner Institute](#) in Potsdam/Germany. His presentation introduced the challenges faced by those who wanting or needing to preserve digital cartographic products, both born-digital material and digitised cartographic heritage. He focused on the prospective cartographic heritage's complexity and on aspects of geospatial preservation. He explained inherent problems of keeping digital cartography online and described pragmatic considerations for a prospective cartographic heritage. Jobst's presentation was based on the contributions to "Preservation in Digital Cartography" ([Springer](#)), which describes and helps to identify main foci of preservation in digital cartography supported by state-of-the-art practices and experience reports.

Cartographic Perspectives on Cultural Heritage

As Manuela Schmidt could not be present at the workshop, Markus Jobst also gave a short introduction into her announced topic: Cartographic Perspectives on Cultural Heritage. For this, he gave a short overview of the activities of the International Cartographic Association's commission on "Digital Technologies in Cartographic Heritage".

The MapRank Search and the Georeferencer Online Service

Petr Přidal is the founder Klokan Technologies GmbH, Switzerland and works for the Moravian Library, Brno, Czech Republic. For the library, Petr took part in the OldMapsOnline.org research project. He gave an overview of the activities and the software produced in the OldMapsOnline.org project.

Petr first introduced [Reoreferencer](#), which is a collection of online tools that allow for collaborative georeferencing, bookmarking, 3D visualization, and cartometric accuracy analysis of existing high-resolution images of scanned maps, which are published on the web. It is also possible to visually integrate historical map layers, overlay these on top of Google Maps or similar base maps, or provide OGC WMS for further research in GIS applications. The tools run in the cloud and are accessible from a web browser environment. An alpha version of Georeferencer is available for testing by general public, but development continues as part of the OldMapsOnline.org project.

Petr then presented first results of the work his company does. [MapRank Search](#) is a geographical search engine that supports spatial ranking. It lets users who browse a map choose a geographical area of interest and optionally also time period, tags or enter a full-text query. They are then presented with the most relevant records from the indexed (potentially very large) metadata



catalogue. MapRank Search is now online as a pilot web application is indexing union catalogue of all Swiss libraries.

3D Reconstruction of and for Cultural Heritage

Georg Rothwangl is an innovation manager at VRVis Research Center, where he is responsible for the coordination of research projects and funding programs. In his talk Georg presented different technical aspects of making real objects into virtual ones through 3D reconstruction. He exemplified these aspects through results of different multi-disciplinary research projects.

Georg showed the virtual reconstruction of real-world objects based on visual input data, ranging from simple digital cameras to high-tech laser scanners. He explained that while modern buildings usually exist first as computer models and only subsequently in reality, historic buildings, monuments or statues are often not computerised. Computer models of immovable historic artefact can, however, be useful for many applications such as renovation planning, documentation, facility management, repairs after major incidents (fire, earthquake), or tourism, to name but a few.

Georg then went on to explain the challenges of “Getting the real world into the computer”. Some of the points here were the necessary degree of precision of the models and the question of how to present them. In the discussion, the question was raised whether the usual size of digital 3D models makes it practical or even possible to make them accessible via the internet. Neither of the projects Georg presented, the Josefsplatz-Project and WikiVienna, gives access to their respective models over the internet.

Day one ended with a number of small, interesting discussions on different aspects of the day's presentations.

Day2

An End-User Annotation and Exploration Tool for Digitised Old Maps

Rainer Simon is a scientist at the AIT - Austrian Institute of Technology. His research focuses on issues of multimedia information management and digital preservation. In the EuropeanaConnect project, Rainer leads the efforts to produce a multimedia annotation framework for Europeana, of which the map annotation frontend is an important part. The system enables users to add free-text annotations as well as structured semantic tags to regions on the map. Furthermore, the tool provides a number of geo-related functionalities such as geo-referencing, geographical search, vector data overlay and export of annotations to a geographical data format.

Rainer gave an overview of the map annotation possibilities already in the frontend. These include free-text annotation and semantic tagging, a number of exploration features like place search, export of annotations and data overlay, and then explained some of the map specific functionalities, namely geo-referencing the old maps with control points and experimental work on projections. An important outcome of the following discussions is that Rainer and Petr will look into possibilities of combining the map annotation system with the Georeferencer.

Annotations, Linked Data, and Location Information

Bernhard Haslhofer is a postdoctoral researcher at the University of Vienna with research interests in the area of Linked Data and the exploitation of user-contributed data (annotations). He has contributed to the W3C Linking Open Data Initiative from the very beginning (2007) and has served as chair, PC member, and reviewer for several conferences and journals in this field. In his presentation, Bernhard gave an overview of how the annotation tools are currently used to exploit existing Linked Data sources in order to enrich user-annotations with contextual information, such as Wikipedia entities or geo-coordinates for places. In turn, the annotations are again exposed as Linked Data on the Web, which makes them exchange- and reusable in a simple and straightforward way.

This talk included a brief introduction to the technical principles of Linked Data and showed how these are applied in the context of multimedia annotations. It also covered recent developments in the area of Open Annotations (OAC model) and gave an overview of existing Linked Data sources that provide geographical information.

The MEKETREpository – A Collaborative Web Database for Middle Kingdom Scene Descriptions

Christian Mader is a research associate at the Department of Distributed and Multimedia Systems of the University of Vienna and involved in the MEKETRE project where he works as the principal developer and researcher of the MEKETREpository Web application. The MEKETRE project is an interdisciplinary research project between the Institute of Egyptology and the Department of Distributed and Multimedia Systems. It seeks to systematically collect, describe and compare wall decorations of Egyptian Tombs of the Middle Kingdom (MK). The MEKETREpository constitutes the technical part of the project. It is implemented as a Webapplication that supports Egyptologists in collaboratively describing MK art-items in a structured way. It also features a Google-like search interface in combination with a faceted search which allows the interested public to intuitively query the collected data. Additionally the material is made publicly available on the Web as Linked Data. Existing controlled vocabularies are utilized in describing the content, but there is also support extending these vocabularies and for the creation of custom categorization schemes.

Christian gave a short overview of the kind of data the MEKETREpository is designed to contain and how this data is described. In a demonstration he presented typical use-cases and the expected workflow for adding, annotating and finding art-items. He also talked about planned features and future work, including possible integration of geolocation information.



New Interaction Methods for Location-Based Services in a Mobile Environment and their Evaluation

Dennis Heinen is a developer for the Intelligent User Interfaces group at the OFFIS Institute for Information Technology in Oldenburg, Germany. For EuropeanaConnect he is currently implementing and experimenting with mobile access channels for Europeana. Dennis presented this work, but also gave an overview of OFFIS' research in non-visual interaction methods, new approaches for Point of Interest (POI) presentation and their evaluation.

Dennis explained how OFFIS combined the navigation tool is smart phones with tactile devices, embedded in a bicycle's handlebar or a belt, or by using the telephones vibration to point the user in the right direction. He also talked about different features added to the normal (optically focussed) navigation tools, aimed at making finding places of interest more intuitive. Finally, he described how some of these tools are evaluated by placing them into e.g. the Android market and sifting through the comments provided by the users.

Getting Context on the Go - Mobile Urban Exploration with Ambient Tag Clouds

The final presentation was given by Matthias Baldauf, who is a researcher at the Telecommunications Research Center Vienna (FTW) in the area for 'User-centred Interaction & Communication Economics'. He has participated in several application-oriented research projects in the fields of mobile multimedia services and novel user interfaces for mobile devices and in-vehicle usage.

Matthias explained that tag clouds are a well-established concept for organizing and visualizing large amounts of user-generated content that is annotated with keywords. At the FTW, these were applied on mobile devices as, so-called, 'ambient tag clouds' which are based on surrounding georeferenced and tagged resources. In his talk, he presented first results of on-going work towards more expressive ambient tag clouds. By analyzing locative textual Web content, e.g. summarising representations, available background information can be generated without explicitly assigned tags. Thus, these ambient tag clouds enable the mobile exploration of a place's semantic beyond visible objects and common points-of-interest.

After a final round of discussions, we were invited to visit the [Globe Museum of the Austrian National Library](#).

Thank yous

The workshop organisers would like to thank the following for their participation in this workshop:

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TaToo (Tagging Tool based on a Semantic Discovery Framework)



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[International Cartographic Association \(ICA\)](#)

[Klokan Technologies GmbH](#)

[Moravian Library](#)

[OFFIS Institute for Information Technology](#)

[Telecommunications Research Center Vienna \(FTW\)](#)

[University of Vienna](#)

[VRVis Research Center](#)

... and of course:



Europeana

You can find more information on the workshop and all presentations at

<http://dme.ait.ac.at/workshop2010/>