

THE MICHAEL PLUS PROJECT IN GREECE: PROMOTING GREEK CULTURAL DIGITAL COLLECTIONS TO A WORLDWIDE AUDIENCE

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Abstract

MICHAEL (Multilingual Inventory of Cultural Heritage in Europe) is a joint initiative from 19 European countries, funded by the eTEN programme of the European Commission, to build up a multilingual portal with a view to provide access to digital collections from Europe's museums, libraries and archives. The MICHAEL portal supports a multilingual service which enables users to explore digital collections from various types of institutions across the participating countries.

The project was originally started by France, Italy and UK who were the first countries to build national portals and provide combined information through the MICHAEL European portal (www.michael-culture.org). The project has since been extended to a further 16 European Countries in MICHAEL Plus. These countries have gradually developed their national portals which then connect to the European portal.

This paper will focus on the Greek MICHAEL portal (<http://www.michael-culture.gr/>) and aims to describe various aspects of coordination and integration of the digital collections, the current status of progress and the future directions for incorporating new collections and institutions.

INTRODUCTION

Michael-Multilingual Inventory of Cultural Heritage in Europe is a deployment initiative supported by two projects co-financed by the eTEN programme, namely: Michael (2004-2007) and MichaelPlus (2006-2008). The scope of the initiative is to celebrate the richness, breadth and diversity of the European cultural heritage by promoting it to a world-wide audience through the Internet¹.

The MichaelPlus consortium brings together public and private bodies: national and regional cultural ministries, state agencies, major cultural institutions and technical partners with specific expertise. The consortium was born in 2004 with partners from three countries (France, Italy and UK) and then was extended to sixteen more countries (Czech Republic, Finland, Germany, Greece, Hungary, Malta, The Netherlands, Poland, Spain, Sweden, Belgium-Flanders, Bulgaria, Cyprus, Estonia, Latvia, Slovakia).

The project started in June 2004 with the aim of implementing an innovative multi-lingual open source platform which provides the ability to search, browse and examine multiple national cultural portals from a single point of access. The target audience of the MICHAEL service is broad. The project addresses scholars at all levels, the casual browser of cultural content or even the potential tourist providing them all with rich cultural content.

¹ Hagedorn-Saupe, M. & Ermert, A. *MICHAEL: a portal for accessing digital cultural heritage collections in Europe - in the context of the European Digital Library*, CIDOC Conference, Vienna, 20-22 August 2007. Available from [http://cidoc.mediahost.org/conf_2007_papers\(en\)\(E1\).xml](http://cidoc.mediahost.org/conf_2007_papers(en)(E1).xml); accessed 26 May 2008

The official completion date of the project has been May 2008. The MICHAEL European Service includes national inventories for the majority of the participating countries and new inventories are gradually being added. The service is available in sixteen languages. An international not-for-profit association - MICHAEL CULTURE AISBL - is established to continue to maintain and promote the MICHAEL European portal beyond the period of EU funding and to make the network of MICHAEL partners sustainable. The Hellenic Ministry of Culture joined the AISBL in April 2008.

INTRODUCING THE MICHAEL PLUS PROJECT IN GREECE

The Hellenic Ministry of Culture jointly with the National Technical University of Athens have developed the Greek national portal, translated and localised the MICHAEL data model to enable the description of digital content made available by Greek institutions. The Hellenic Ministry of Culture is coordinating the communication and collaboration procedure with the participating institutions as well as the supervision of cultural information management aspects involved in the MICHAEL project in Greece, in order to facilitate the integration of digital collections on the MICHAEL catalogue.

Since 2004, the Hellenic Ministry of Culture has funded numerous digitisation projects of various cultural institutions throughout Greece, including museums, archives, universities, public or private foundations and other collection holders. At the same time, the Ministry is running national scale digitisation projects, funded from the EU, involving the digitisation of cultural heritage under the protection of the Ministry (i.e. the Digitisation of the Movable Cultural Heritage coordinated by the Directorate of the National Archive of Monuments, the project “Cultural Egnatia”, the Digitisation of Content for Cultural and Educational Applications, etc).

All these projects are expected to produce a very significant amount of digital cultural content and cultural websites. MICHAEL offers an opportunity to create a national

cultural network not only to promote the results of the projects but also to facilitate access to this rich source of digital cultural content to a worldwide audience through the Internet.

NATIONAL ROLLOUT

The strategy for populating the Greek MICHAEL portal involved directly contacting institutions to inform them about the potential of MICHAEL and arranging meetings to discuss how their digital collections, and the websites or multimedia DVDs that give access to these collections, could be displayed on the MICHAEL portal. The first institutions to be contacted were selected after a survey that identified about 60 of them willing to work with the Hellenic Ministry of Culture for the effective dissemination of their digital cultural content.

As a pilot, five institutions covering a variety of domains (i.e. Greek Literary and Historical Archive, Greek Film Archive, Athens University History Museum and the Greek National Opera) that were at the final stages of their digitization projects were shortlisted and contacted first. From the pilot group, it emerged that mapping of metadata was often not possible, contrary to what was originally thought, since some institutions did not use metadata at collection level at all, or the metadata that they used had few fields in common with the MICHAEL data model (that defines the data structures used to describe digital collections in MICHAEL). Therefore most of the institutions had to proceed by creating collection level descriptions in MICHAEL. The pilot also identified the need of introducing printed forms (word documents), to be filled in or to be used in addition to the online forms of the production module to facilitate communication and data entry, as well as the need for additional documentation material.

More institutions in Athens, Thessaloniki (northern Greece) and Ioannina (western Greece) were gradually contacted from February 2008 and on. Meetings were possible with all the institutions in Athens and Thessaloniki. Training on the use of the platform was also carried out when required. Within the first two months, until the

first presentation of the Greek MICHAEL portal, at the end of May 2008, 19 institutions had catalogued 61 collections, 32 websites or cds/dvds and 17 digitisation projects. These covered a variety of digital content, a multitude of physical types and different types of institutions. Participating institutions include two of the largest state museums, i.e. the National Archaeological Museum of Athens and the Byzantine and Christian Museum of Athens, large Museums and Archives, such as the Benaki Museum, National Gallery, Goulandris Natural History Museum, Museum of Contemporary Art, Greek Film Archive etc. as well as smaller institutions such as the Museum for the Macedonian Struggle, the Contemporary Social History Archives etc.

THE FIRST PROTOTYPE OF THE GREEK MICHAEL INSTANCE

All content in MICHAEL portal is contributed by the institutions themselves who are responsible for the quality of the descriptions provided in Greek as well as in English. At the same time, the Hellenic Ministry of Culture offers continuous support and guidance in any issues that the institutions come across, and offers training sessions to assist institutions to familiarize with the concepts of the MICHAEL data model and platform. Of the 19 institutions that contributed content to the first prototype of the Greek MICHAEL, about half (9 institutions) used the online production module to catalogue their collections while the other half (10 institutions) felt more confident to start with filling the printed forms. It should be mentioned that training was carried out only with 5 of the 9 institutions that used the platform for cataloguing, while the other 4 institutions managed to work around the system by consulting the System User Guide provided. In order to ensure the quality of contents, users of the platform are initially granted Cataloguer rights, while validating and publishing of data is performed by the Ministry of Culture. However, as users become more experienced with using the system, institutions are allowed Supervisor rights so that they are completely independent with regard to the updating of their data.

GREEK COLLECTIONS ON THE EUROPEAN PORTAL

The Greek data was harvested into the first version of the European portal that was presented in May 2008 (project conference in Warsaw) along with content from most of the nineteen participating countries. The Greek digital collections enriched the already existing Greek collections from institutions of other countries, almost by doubling the digital collections whose spatial coverage is Greece.

Browsing by Spatial Coverage in the European portal highlights the important issue of the correct indexing of digital collections, so that they can be retrieved in all relevant searches. For example, in an attempt to search for collections whose spatial coverage is “Greece”, only 43 out of the 61 collections of institutions located in Greece were displayed. By further checking the descriptions of the Greek digital collections, it appears that the 18 remaining collections were not indexed on the spatial coverage field and therefore are not displayed.

A feature of the homepage of the European portal is the “Collection of the Week”. Every year, fifty two collections are selected among the partners and displayed on the homepage for one week of the year. The Hellenic Ministry of Culture runs a selection procedure to identify the Collections of the Week from Greece. Eight institutions submitted images representing their collections, three of which were selected to be scheduled as Collections of the Week of the European portal. The details of the selected images were translated by partners in all sixteen languages. It is interesting to note that this procedure motivated Greek institutions to catalogue content in MICHAEL so that their collections could stand as candidate Collections of the Week. The selection procedure will be repeated every year.

STATISTICS

Some interesting statistical data was gathered and presented in the MICHAEL conference in Warsaw in May 2008². These data included the number of digital

² De Francesco, G. “*MICHAEL: A map of the digital cultural heritage in Europe*”, MICHAEL conference “Promoting the European cultural heritage worldwide: impact and benefits”, Warsaw, 19-20 May 2008. Available from <http://www.icimss.edu.pl/en/?id=99>, accessed 26 May 2008

collections per country (spatial coverage), the number of digital collections according to their period, the types of institutions, and the type of service (online or offline). The statistics are shown in the figures below, where the numbers concerning Greece have been added next to the ones of the European portal and other countries.

In May 2008, the Greek collections on the European portal reached 114 collections, equalling 2% of the total collections (Figure 1: Collections: Country). Regarding the period of the Greek collections, 74% are Modern and Contemporary, 20% Byzantine, 10% belong in Antiquity and 9% in Geological and Prehistoric eras (Figure 2: Collections: Period). This follows a similar pattern as the collections in the European portal, however is not truly representative of the Greek cultural heritage. It is estimated that the Greek collections in MICHAEL will better represent the Greek cultural content once the digitisation projects of the Ministry of Culture are completed. Regarding the type of participating institutions, 48% are Museums, 24% Archives and only 16% Libraries and 12% Research/ Scientific institutions (Figure 3: Institutions: Type). As far as the Access type is concerned (Figure 4: Services and Products: Access type), only 59% of the services and products give online access to digital collections. It is envisaged that as the digitisation projects of Greek institutions are nearing completion, more online services will become available.

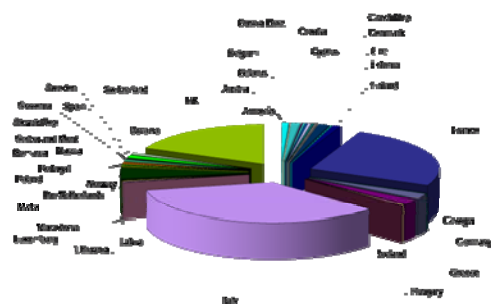


Figure 1: Collections: Country

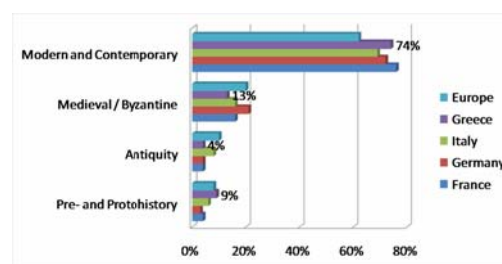


Figure 2: Collections: Period

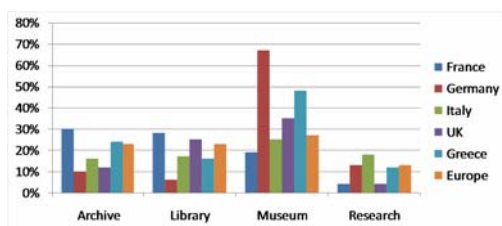


Figure 3: Institutions: Type

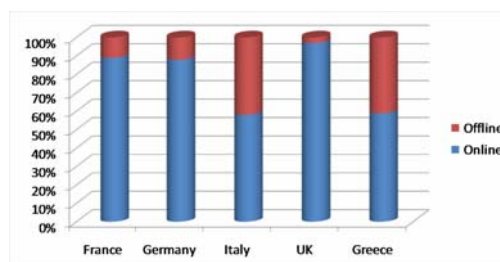


Figure 4: Services and Products: Access type

MICHAEL STATISTICS, May 2008

CATALOGUING IN MICHAEL: COLLECTION DESCRIPTION AND THE MICHAEL DATA MODEL

A Collection Description is a written description of a collection's contents based on a standard information structure. UKOLN³ defines a Collection Description as “a description of a collection which provides information about the collection as a whole rather than the individual items within a collection”⁴. According to the DCMI Collection Description Working Group⁵ “The term 'collection' can be applied to any aggregation of physical or digital items”.

Digital collections are at the heart of the MICHAEL project and relate to all aspects of the European cultural heritage. A digital collection may be a set (or group) of digital items or a set of records describing digital items. A digital collection in MICHAEL may include:

- Aggregations of digital images, text, audio, video, mixed media

³ UKOLN Metadata, projects, resources, initiatives on metadata, by UKOLN, centre of expertise in digital information management. Available from <http://www.ukoln.ac.uk/metadata>; accessed 29 April 2008

⁴ MLA (2007), *MICHAEL-UK Collection Description Manual - Version 2*, UK, The Museums, Libraries and Archives Council. Available from <http://www.michael-culture.eu/technology/collectiondescriptionmanual/glossary.htm>; accessed 6 May 2008.

⁵ DCMI, Collection Description Community. Available from <http://dublincore.org/groups/collections/>; accessed 7 May 2008

- Databases, image databases and collections of web resources
- Digital archives
- Internet directories and subject gateways
- Digital versions of archive, library or museum catalogues

A digital collection may result from the digitisation of a physical collection but also may be born digital. It may even result from the digitisation of objects which don't form a physical collection or combine born digital and digitised objects.

It can be argued that the descriptions of items on online databases form part of the “dark web” as they are not usually found by search engines. Collection Descriptions can help users to find a database and offer an idea of the items that shape a collection. Furthermore, Collection Descriptions can act as a useful tool for the curators in managing their collections, as it is always helpful to have an initial catalogue entry at collection level available.

MICHAEL defines a common approach and a model for digital cultural heritage collections which is applied across the participating countries. The MICHAEL service implements trans-European standards and guidelines for digital cultural heritage initiatives, as agreed by the eEurope National Representatives Group (NRG) for the Digitisation of Cultural Heritage⁶. The service is based on open-source technologies and is flexible to allow for extension to additional national inventories in future.

More specifically, the MICHAEL project built upon existing assets⁷ including:

- the guidelines and recommendations developed by the MINERVA project, (an IST Coordination Action involving the European network of the Ministries of

⁶ Fresa, A.(2005), *MICHAEL: Multilingual Inventory of Cultural Heritage in Europe*. Available from <http://www.michael-culture.eu/resources.html>; accessed 8 May 2008

⁷ Multilingual Inventory of Cultural Heritage in Europe. Available from http://ec.europa.eu/information_society/activities/eten/projects/project_of_the_month/200502_michael/index_en.htm; accessed 2 May 2008

Culture of Member States) and the progress that has been achieved in supporting the development of a European vision for the digitisation of culture heritage set out in the Lund Action Plan

- the common metadata standard for inventories of digitised cultural content, agreed by the National Representatives Group

The MICHAEL Data Model⁸ defines the underlying data structures and provides a basic understanding of the various fields which are used to describe digital collections and all related information in MICHAEL. The purpose of the model is to make the system and its data formation usable and comprehensible for anyone wishing to contribute content: it defines the entities, the relations between them and gives descriptions for every field of the MICHAEL platform. Furthermore, the common, agreed, meta-data model aims to increase the value of the results of cross-border searching to all countries linked on the MICHAEL service.

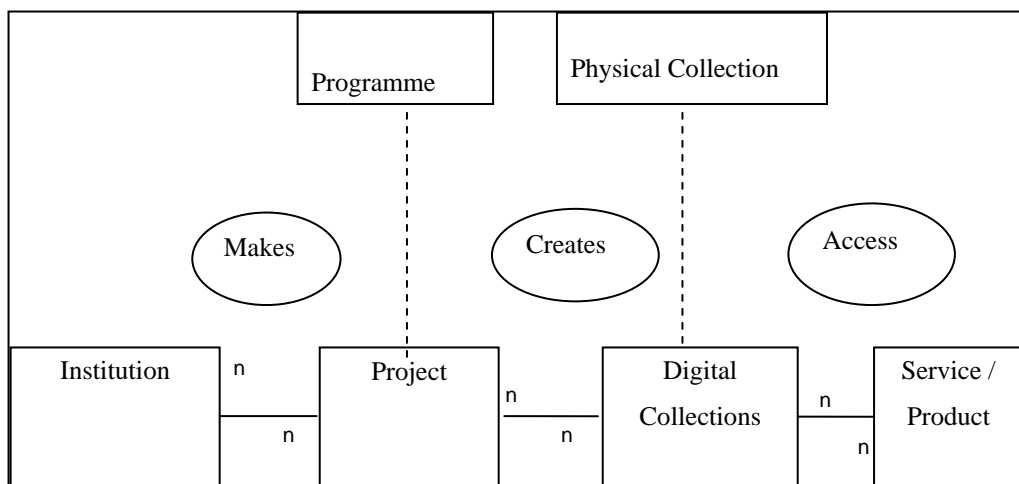
The Data Model focuses primarily on the description of digital collections for resource discovery, as MICHAEL forms an online inventory catalogue of digital and digitized cultural heritage of Europe. The data model is composed of five entities or five different data structures. Apart from the digital collections, the other four entities are offered to provide additional descriptive or referential information about the digital collections, in order to avoid duplication, such as the institutions that own the collections, the projects or programmes within which they are created, the physical collections that were digitised and the services or products through which digital collections are made available.

The entities form five record types in the MICHAEL platform while a full description in MICHAEL consists of - at least - three entities (including Digital Collections,

⁸ MICHAEL (2005), *MICHAEL data model – Version 1.0*, MICHAEL. Available from http://www.michael-culture.eu/documents/MICHAELDataModelv1_0.pdf; accessed 7 May 2008

Services or Products and Institutions) and defines - at a minimum level - the mandatory relations between these entities.

The MICHAEL data model derives from the MINERVA work on inventories of EU digital cultural heritage and is closely related to the RSLP⁹ collection description schema and to the Dublin Core Metadata Initiative on collection description. The Hellenic Ministry of Culture has undertaken the translation and the revision of the data model¹⁰ in order to meet the specific needs for the cataloguing of greek digital collections.



Entities involved in describing Digital Collections

Apart from the guidance and support provided by the Hellenic Ministry of Culture throughout the cataloguing process and all relevant project documentation (such as the Data Model and the System User Guide), emphasis has been placed on collection

⁹ RSLP Collection Description, *RSLP Collection Description Schema*. Available from <http://www.ukoln.ac.uk/metadata/rslp/schema/>; accessed 5 May 2008

¹⁰ MICHAEL (2007), *MICHAEL data model – Version 1.0, Greek translation*, Available from <http://www.michael-culture.eu/doc.html>; accessed 5 May 2008

description recommendations¹¹ for the cataloguers, to ensure consistency and effective access to collections, including:

- The creation of complete well-indexed records as data will be searched in different ways by different interfaces
- Consideration of user needs with a view to facilitate access:
 - Definition of target audiences
 - Indexing of even the less obvious themes that a collection illustrates
 - Indexing of all possible spatial coverages
- Records' update: continuous editing and creation of new records as collections grow or services change
- Brief and clear text fields
- First-two- line description focus which will appear in the search listing
- Investment in creating links from digital collection not just to institution and service but also to physical collections
- Understanding the difference between a digital collection and the service that makes it available
- Seeking advice on the quality of description
- Using published MICHAEL records as best practice examples

Digital Collection

Title of collection **Greece at the Benaki Museum**

Description This digital collection presents part of the Benaki Museum collections that comprise many distinct categories totaling more than 40,000 items, illustrating the character of the Greek world through a spectacular historical panorama: from antiquity and the age of Roman domination to the medieval Byzantine period; from the fall of Constantinople (1453) and the centuries of Frankish and Ottoman occupation to the outbreak of the struggle for independence in 1821; and from the formation of the modern state

¹¹ MICHAEL, training materials, Kate Fernie, MLA, Giuliana De Francesco, MiBAC, *Collection description and the MICHAEL Data Model*. Available from <http://www.michael-culture.eu/doc.html#>; accessed 5 May 2008

	of Greece (1830) down to 1922, the year in which the Asia Minor disaster took place.
Language	Greek, Modern; English; Spanish
Legal status	©Benaki Museum
Digital type	Text ; Still image
Digital format	Plain text; JPEG
Size	1463 items
Subject	Education; Culture; History; Byzantine history; Archaeology; Literature; Art; Visual; Museums; Social and human sciences
Period	Prehistory; Palaeolithic; Mesolithic; Neolithic; Bronze Age; Antiquity; Archaic period; Classical period; Hellenistic period; Roman period; Medieval; Early Byzantine period; Early Byzantine period; Middle Byzantine period; Late Byzantine period; Post Byzantine period; Frankish rule (13th – 17th century); Venetian rule (14th – 18th century); Ottoman rule (15th – 19th century); Modern and contemporary period; 16th century; 17th century; 18th century; 19th century; 20th century; Modern Greek period (19th – 20th century)
Spatial coverage	Europe; GREECE

Illustration

Thumbnail



Gold medallion with relief bust of the goddess Athena, 2nd c. BC.
© Benaki Museum

Related Services

Service <http://www.benaki.gr>

Related institutions

Is owned by Benaki Museum

Good practice example of a Digital Collection of the Benaki Museum, Greece

MULTILINGUALISM AND TERMINOLOGY IN MICHAEL

The goal of the MICHAEL project is to build a multilingual inventory of the cultural heritage in Europe. It is establishing an international online service, which brings together data from national and regional inventories into a single point of access. The

multilingual challenge for the Greek MICHAEL instance was to transfer any relevant information in Greek, this included:

- Translation of the data model and the relevant documentation
- Translation of the user interface of the production module
- Online help in Greek
- Greek terminology lists
 - Some translated and adapted from the European ones
 - Some mapped into the European lists
 - Some remained local

TERMINOLOGY SOURCES

A common set of terminology resources has been agreed for implementation in the MICHAEL platform including: subject, period, digital type, digital format, language, spatial coverage, audience, WAI, access conditions, access type, institution type. International term lists have been adopted where possible. Each term list is available in all partner languages (including regional minority languages for some countries). The Hellenic Ministry of Culture taking into account the particularities for the cataloguing of greek digital collections has undertaken the adaptation and the enhancement of the terminology lists.

MICHAEL uses a selection of terms from the UNESCO subject headings which offers a multidisciplinary controlled and structured vocabulary used in subject analysis and retrieval of documents and publications in the fields of education, culture, natural sciences, social and human sciences, communication and information¹². It provides lists of terms rather than classification numbers which are intuitive and easy to use. Terminology sources for specific fields include¹³:

¹² The UNESCO Thesaurus. Available from <http://databases.unesco.org/thesaurus/>; accessed 30 April 2008

¹³ MICHAEL, training materials, Kate Fernie, MLA, Giuliana De Francesco, *Terminology and multilingualism in MICHAEL*. Available from <http://www.michael-culture.eu/doc.html#e>; accessed 5 May 2008

- Countries: ISO 3166¹⁴
- Language: ISO 639-2¹⁵
- Digital type: DCMI-type¹⁶
- Subject headings: UNESCO¹⁷

The MICHAEL terminology group expanded the following terminology lists developed by MINERVA working group on inventories:

- Digital format
- Period
- Institution type
- Access type
- Audience
- WAI
- Access conditions

The MICHAEL platform also includes terminology controlled fields for:

- Administrative status
- Project status
- Output types
- Physical formats
- Culture

¹⁴ ISO 3166 Country Codes, *English country names and code elements*. Available from <http://www.iso.org/iso/en/prods-services/iso3166ma/02iso-3166-code-lists/list-en1.html>; accessed 30 April 2008

¹⁵ ISO 639-2 Language Codes, *Codes for the Representation of Names of Languages*. Available from <http://www.loc.gov/standards/iso639-2/>; accessed 30 April 2008

¹⁶ Dublin Core Metadata Initiative, *DCMI Type Vocabulary*. Available from <http://dublincore.org/documents/dcmi-type-vocabulary/>; accessed 30 April 2008

¹⁷ The UNESCO Thesaurus. Available from <http://databases.unesco.org/thesaurus/>; accessed 30 April 2008

The above group of lists is nationally determined and can be either closed (users must select terms from the terminology list for that field) or open (users may select terms from the list and/or add a term in a free text field).

In the Greek platform more lists are open so, users can add terms as free text in addition to the terms from the lists. However, users are encouraged to use terms from the terminology lists and add new terms only if it is absolutely necessary, as open lists can certainly offer more flexibility but may result in less consistency. This implies that frequent revisions of terminology lists focusing on the added terms are needed.

MULTILINGUALISM IN MICHAEL: ADAPTING THE MICHAEL PLATFORM

The MICHAEL software platform consists of two modules that work together to provide data management and publishing services. The production module allows users to create, modify, import and manage records online. It supports multilingual data entry: users can enter alternate language versions for each free text field. Multilingual terminology resources are implemented in the data entry forms which supports multiple character sets and alternate language versions of the user interface. The publication module provides the functionality for the development of a web portal that enables end-users to search for digital cultural heritage content¹⁸.

Both the production module and the publication module were installed locally and adapted to create the Greek MICHAEL instance¹⁹. Adapting the MICHAEL platform included implementing the data model in Greek, using terminology translated in Greek, translating the user interface of both the production module and the publication module, and customizing the graphic design of the portal. The Greek

¹⁸ MICHAEL project, Technology. Available from <http://www.michael-culture.eu/technology.html> accessed 8 May 2008

¹⁹ Christaki, A., Tzouvaras, V., Fresa, A. Caffo, R., Sola, P. G., Kollias, S. *Achieving Interoperability in the MichaelPlus Project*. Available from <http://www.michael-culture.eu/resources.html>; accessed 8 May 2008

MICHAEL portal is available in both Greek and English language, same as the catalogued content.

With regard to the customization of the portal interface, the graphic design was customized to have similar look-and-feel as the website of the Hellenic Ministry of Culture. Some additional browsing options were also implemented in the Greek MICHAEL portal, such as browsing by the type of material of the physical collection, which better represents the way Greek digital collections are organized. Additional graphics were created to enable searching by spatial coverage using a map, as well as searching by period using a timeline. Another additional feature that was implemented in the Greek MICHAEL portal is the central display on the homepage, of a selected image representing one highlighted digital collection. A new image of a different digital collection is randomly selected and displayed each time the homepage is refreshed, thus providing the opportunity for the promotion of various digital collections.

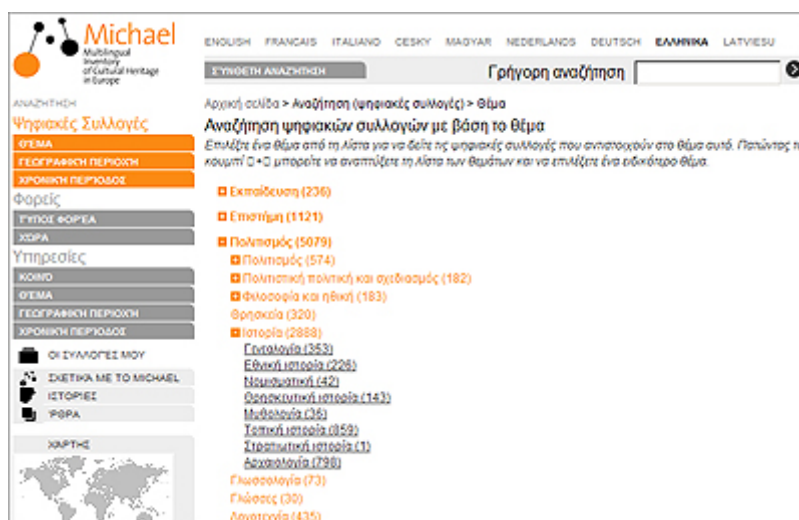


The MICHAEL | Hellas homepage

MULTILINGUALISM IN MICHAEL EUROPEAN SERVICE

The MICHAEL European service supports editorial text and site navigation in multiple languages. Multilingual terminology resources support the following search services:

- Browsing of the contents using simple clickable term lists
- Browsing of the contents by clicking on index terms from the record display
- Sorting of the search results
- Advanced search forms
- Quick search, uses the multilingual terms included in records to support multilingual retrieval (e.g. a search on ‘archaeology’ will retrieve records catalogued in Greece that have been indexed with this term)
- Record display
 - Free text will be displayed in the original language unless alternate text is available in the language of the website (multilingual data entry)
 - Controlled terminology will be displayed in the language of the website (multilingual terminology)
 - Users are offered the option to switch the display of an individual record into an alternate language
- Links to machine translation services are offered to enable users to translate text into alternate languages
- User preferences include the option to set the preferred display language.



EU portal navigation and searching in Greek language

WHY REGISTERING YOUR COLLECTION WITH MICHAEL AND FUTURE DIRECTIONS

MICHAEL provides a common point of access bringing together the results of various digitisation projects and initiatives across Europe. The service offered by MICHAEL enables European citizens (students, researchers, tourists and other end users) to find and exploit European digital cultural heritage material, which is accessible, on a multilingual basis, over the Internet²⁰. Registering your collection with MICHAEL will allow participation in wider networks which promote digital cultural heritage such as the European Digital Library²¹ (EDL).

Through MICHAEL cultural institutions can:

- Increase visibility and reach wider audiences at national and international level
- Inform users about the collections they own and facilitate access to them
- Increase their online profile and promote their own activities
- Manage collections and large groupings of objects or data

²⁰ Multilingual Inventory of Cultural Heritage in Europe. Available from http://ec.europa.eu/information_society/activities/eten/projects/project_of_the_month/200502_michael/index_en.htm; accessed 2 May 2008

²¹ European Digital Library Project. Available from <http://www.edlproject.eu/index.php>; accessed 29 April 2008. EDLproject is a Targeted Project funded by the European Commission under the eContentplus Programme, within the area of Cultural content and scientific/scholarly content.

- Plan further digitisation activities, based on the knowledge of what's available and identify possible synergies

As far as ministries and agencies responsible for cultural heritage are concerned, MICHAEL allows the discovery of digitised resources and fosters synergies between projects. It is a powerful tool for:

- Building a map of digitisation of the cultural heritage at a national scale
- Knowing status of progress and who is doing what, and therefore,
- Planning and monitoring digitisation initiatives undertaken or funded by ministries and other agencies

In the Greek MICHAEL workshop that was organised in May 2008, people from a variety of institutions covering different domains heard about MICHAEL and expressed their interest to participate in future. The Hellenic Ministry of Culture conducts training to institutions who wish to register their collections with MICHAEL and offers advisory service in relation to all possible integration issues, such as cataloguing and terminology control, to ensure accuracy, consistency and effective content retrieval. Training workshops are planned to be organised in Crete, Ioannina and other regions of Greece as well as workshops in Athens. Further dissemination activities are planned to ensure that not only institutions are aware about the possibility to be listed in MICHAEL, but also to advertise MICHAEL to the general public and make the MICHAEL online catalogue widely known.

If you wish to register your collections or get any further information about MICHAEL in Greece, contact:

Hellenic Ministry of Culture

Directorate of Informatics and Telecommunications, Katerina Moutogianni

Directorate of the National Archive of Monuments, Effie Patsatzi

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2. De Francesco, G., “*MICHAEL: A map of the digital cultural heritage in Europe*”, MICHAEL conference “Promoting the European cultural heritage worldwide: impact and benefits”, Warsaw, 19-20 May 2008. Available from <http://www.icimss.edu.pl/en/?id=99>, accessed 26 May 2008
3. Dublin Core Metadata Initiative, *DCMI Type Vocabulary*. Available from <http://dublincore.org/documents/dcmi-type-vocabulary/>; accessed 30 April 2008
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