



# Michael

Multilingual  
Inventory  
of Cultural Heritage  
in Europe



Celebrating the richness, breadth and diversity of the European cultural heritage by promoting it to a worldwide audience through the Internet.



<http://www.michael-culture.org>



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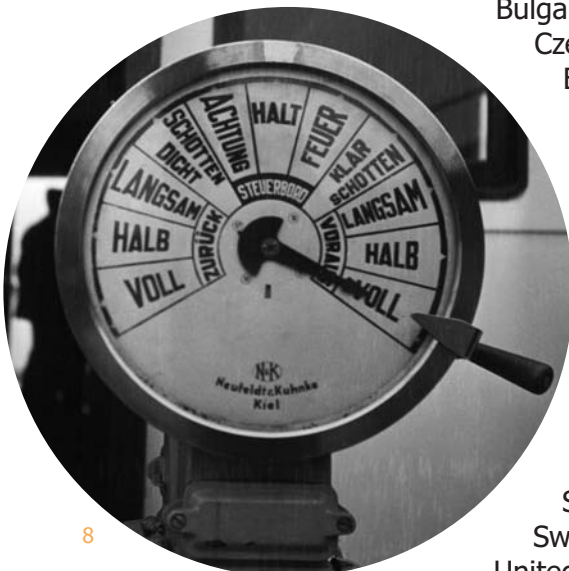


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## Overview

MICHAEL is a cultural portal that aims to open up worldwide access to digital collections from Europe's museums, libraries and archives. Through its multilingual service, people are able to find and explore the European digital cultural heritage using the Internet.

The initiative was started by France, Italy and the UK through the MICHAEL project, which has since been extended to a further 15 European countries in MICHAEL Plus. Both projects are funded through the European Commission's eTen programme. Their main focus is the integration of national digitisation initiatives and national inventories of digital cultural heritage to establish an international online service. The MICHAEL-Culture Service currently allows its users to search, browse and examine descriptions of resources held in institutions from France, Italy and the UK. The service will be extended step-by-step to include descriptions of resources from the countries which have joined the project since 2006. Each country is currently establishing its national portal which will be interoperable with the MICHAEL European service thus enabling national contents to be made available to international audiences. MICHAEL is a contribution towards the European Commission's vision of a European Digital Library.

**<http://www.michael-culture.org>**  
**Contact: [AskMichael@amitie.it](mailto:AskMichael@amitie.it)**

The MICHAEL team invites you to tell us about digital collections for inclusion in MICHAEL. Please send the title of the collection, a brief description, the URL and your contact e-mail address to: [AskMichael@amitie.it](mailto:AskMichael@amitie.it)  
For more information please see page 25.



# Technology

The MICHAEL software platform consists of two modules that work together to provide data management and publishing services:

- A production module allows users to create, modify, import and manage records that describe aspects of the digital cultural heritage. These functions are available using a standard Web browser. Data is stored using a powerful and flexible XML database based on the MICHAEL data model.
- A publication module provides an intuitive interface to enable end-users to search for digital cultural heritage with their Web browser. This module uses a powerful XML search and display engine, which can be customised to allow institutions or countries to adapt the interface to meet their particular needs.

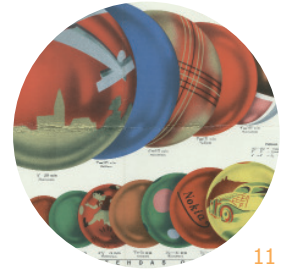
A MICHAEL national instance consists of a production and a publication module.

## MICHAEL data model

The key to any distributed information system is the underlying data and the way that it is structured. The MICHAEL platform is based on the MICHAEL data model, which derives from work by the MINERVA project on inventories of the European digital cultural heritage and is closely related to RSLP collection description schema and to work by the Dublin Core Metadata Initiative on collection description.

## Information services

The two MICHAEL modules act as data repositories that are consistent with the Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH) making metadata available in both standard Dublin Core and MICHAEL format.



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Records from distributed sources can be gathered into a country's MICHAEL production module and published together in its publication module. The MICHAEL European service harvests each country's publication module to bring together the contents.

The MICHAEL publication module includes a REST-based API for searching and retrieving records using simple HTTP requests and XML cultural information service providers to incorporate MICHAEL search services within their websites.

### Open source software

The MICHAEL platform is distributed as open source software and is built on top of other well-known open source components. The most important underlying components of the MICHAEL platform are:

- Apache Cocoon: an XML infrastructure for complex Web applications
- eXist: an XML database management system
- Xdepo: a Cocoon environment to manage data stored in an XML database using Web forms.
- SDX: a search engine for large collections of XML documents, which is based on the stable and widely used Apache Lucene search engine.

The MICHAEL platform can be deployed on wide variety of systems using Java technologies.

For more information see:

<http://www.michael-culture.org/en/about/technology>

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# België-Vlaanderen

## Belgium-Flanders



In Flanders the MICHAEL Service will be incorporated as part of the cultural heritage portal: Erfgoedsite ("Heritage Site"). The goal of Erfgoedsite is to promote better public understanding of the rich and varied content covered by the term "cultural heritage". The site targets a general audience who is able to explore it and discover a wide variety of cultural heritage, ranging from landscapes and urban legends to living heritage. As well as offering an overview of heritage, Erfgoedsite lists all online databases of cultural heritage in Flanders, allowing visitors to browse through the heritage in detail. The

MICHAEL Service will greatly enhance this feature, improving both searches of and multilingual access to these digital collections. Flanders will also seize the opportunity of participation in the MICHAEL Plus project to improve monitoring of digitisation efforts in the field of cultural heritage.



De MICHAEL Service zal in Vlaanderen in de Erfgoedsite worden geïntegreerd, de portaalsite van de Vlaamse Gemeenschap over cultureel erfgoed. De Erfgoedsite richt zich tot een breed publiek en presenteert het erfgoed in een zo ruim mogelijk perspectief. De bedoeling is om het publiek bewust te maken van de rijke en gevarieerde inhoud die door de term "cultureel erfgoed" gedekt wordt. De site nodigt het publiek uit om de grote verscheidenheid in het cultureel erfgoedlandschap te ontdekken, van monumenten en landschappen over "broodjes aap" tot levend erfgoed en processies. Behalve een overzicht van wat erfgoed inhoudt, lijst de Erfgoedsite ook alle online gegevensbestanden van cultureel erfgoed in Vlaanderen op. Bezoekers kunnen deze digitale bronnen in detail doorbladeren en bekijken. De geavanceerde zoekmogelijkheden en meertalige interfaces van MICHAEL zullen de toegang tot dit onderdeel van de site gevoelig verbeteren.

Vlaanderen zal van deze gelegenheid ook gebruik maken om de inspanningen op het gebied van digitalisering van cultureel erfgoed beter in kaart te brengen.

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# България Bulgaria

Българското културно и научно наследство наброява над 5 милиона обекта, но все още не е добре представено в електронен вид. В България няма държавна програма (съответно и финансиране), нито са разработени национални стратегии за трите приоритетни дейности, свързани с електронните библиотеки – дигитализация, достъп онлайн и дългосрочно съхранение.

Проектът MICHAEL може да допринесе за развитието на тези области в България. През пролетта на 2007 към него се присъединиха Институтът по математика и информатика и Централната библиотека на Българската академия на науките.

Илюстрациите са от културоложката фотографска колекция "Паметта на лицата" с куратор Зафер Галибов.



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It has been estimated that about five million objects are included in Bulgarian cultural and scientific heritage collections. But these objects are not yet well represented in electronic form. There is no government funding programme available for digitisation. National strategies have not yet been established for any of the digital libraries priority areas – digitisation, online accessibility or long-term preservation.

In the spring of 2007, the Institute of Mathematics and Informatics and the Central Library of the Bulgarian Academy of Sciences joined the MICHAEL Plus project to contribute to the development of digitisation and digital library areas in Bulgaria.

The illustrations are from the historical photographic collection "Faces to Remember", curated by Zafer Galibov.



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# Česká republika Czech Republic

The Czech Republic has been a member of the MICHAEL Plus project since June 2006, through the involvement of the Ministry of Culture and the Devoteam Company.

By May 2007, the Czech Republic had successfully installed the MICHAEL production module and details of the first collections had been entered into the database.

The interest of the MICHAEL initiative is obvious for the Czech Republic, a country where there have been many initiatives in digitising the cultural heritage since the beginning of the 1990's. The most famous initiatives have been in libraries with the support of the Ministry of Culture. Two programmes in particular are Manuscriptorium (<http://www.manuscriptorium.com> – a system for collecting and making accessible information on historical book resources on the internet, linked to a virtual library of digitised documents) and Kramerius (<http://kramerius.nkp.cz> – a system for access to digitised old periodicals endangered by acid-paper deterioration). In 2005 these efforts were recognised when the National Library received the UNESCO/Jikji Memory of the World Prize; which promotes the objectives of the Memory of the World Program. Local and national museums and galleries are also involved in digitisation programmes. Information about these projects and about digitisation in general is available from the Information centre of the National museum: <http://www.emuseum.cz>. The Czech Republic has also taken part in several projects related to cultural heritage and information society, including MINERVA and Calimera (coordinating IST for local cultural institutions).

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Česká republika je členem projektu MICHAEL Plus od června 2006 prostřednictvím Ministerstva kultury ČR a společnosti Devoteam.

Produkční modul platformy byl úspěšně lokalizován do českého jazyka a první sbírky byly vloženy do databáze již v květnu 2007.

Zájem České republiky o projekt tohoto typu je zjevný, neboť se zde již od počátku 90. let minulého století objevovalo mnoho iniciativ v oblasti digitalizace kulturního dědictví.

Nejslavnější z nich jsou bezesporu v oblasti knihovnictví, zejména programy Manuscriptorium (<http://www.manuscriptorium.com> – systém shromažďující a zpřístupňující informace o historických knižních fondech na internetu, který je provázaný s digitální knihovnou digitalizovaných dokumentů) a Kramerius (<http://kramerius.nkp.cz> – systém zpřístupňující bohemikální dokumenty tištěné na kyselém papíru, jejichž existence je ohrožena rozpadem papírového nosiče), které jsou podporovány Ministerstvem kultury ČR.

Národní knihovna České republiky uspěla s projektem uchování a zpřístupnění sbírek badatelům a příštím generacím. Za tento počín v roce 2005 získala ocenění UNESCO/Jikji Memory of the World Prize.

Muzea a galerie se rovněž zapojují jak do místních, tak i národních digitalizačních programů. Informace o těchto projektech a také jiná sdělení týkající se digitalizace získáte v Centru pro prezentaci kulturního dědictví – <http://www.emuseum.cz>.

Česká republika je zapojena i do dalších projektů, které jsou spojeny s kulturním dědictvím a informační společností, jako je např.

MINERVA či Calimera (koordinace činností zaměřených na informační technologie místních kulturních institucí).



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Estonia joined the MICHAEL Plus project in spring 2007. Until now Estonia has not had an integrated portal that can offer information about digital collections from different institutions. Digital collections, and information about them, could either be found from the homepage of the institution that administrated them or not at all. Availability of information in different languages was also limited. The project is therefore an excellent opportunity for Estonia to bring together information about different digital collections in one place while also providing multilingual access. A working group has been set up in Estonia to implement the MICHAEL Plus project including amongst others, the group includes digitisation competence centres.

Gathering information about digital collections in MICHAEL is a good way to move forward in providing users with access to digitised collections. For example, a central museum information system is now being completed in Estonia which will enable access to information about museum objects over the Internet.



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Eesti liitus MICHAEL Plus projektiga 2007.aasta kevadel. Käesoleva ajani olid erinevad digitaalsed kollektsioonid ning info nende kohta kättesaadav vastavat kollektsiooni hoidva institutsiooni kodulehel või puudus sootuks. Eestis puudus ühtne portaal, mille kaudu saaks teavet erinevate digitaalsete kollektsioonide kohta. Ka oli lünklik teabe edastamine mitmekeelsena. Seetõttu on MICHAEL Plus projekt suurepärase võimaluse koondada teave erinevate digitaalsete kollektsioonide kohta ühtsesse süsteemi ning teha see kättesaadavaks mitmekeelsena. MICHAEL Plus projekti elluviimiseks on moodustatud töögrupp, millesse on kaasatud digiteerimise kompetentsikeskused. Digitaalsete kollektsioonide kohta info kogumine MICHAEL Plus projekti käigus on hea viis liikumaks edasi digiteeritud esemete kättesaadavaks tegemisel laiale avalikkusele.

Käesoleval hetkel on Eestis valmimas tsentraalne muuseumide infosüsteem, mis võimaldab perspektiivis muuhulgas ka muuseumi objektide kohta info kättesaadavaks tegemise interneti vahendusel.

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For Finland, participation in the MICHAEL Plus project is a direct result of the national co-operation in eKAM – a consortium of libraries, museums and archives established in 2003 to develop digitalisation in Finland. Now, the National Archives, The National Library and The National Board of Antiquities have all become partners in MICHAEL Plus for Finland. Project activities are coordinated by the National Digitisation Centre, part of the Centre for Microfilming and Conservation at the National Library of Finland.



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The national MICHAEL portal will be launched in autumn 2007, making available descriptions of digital collections from the national partners. At the same time, all of the owners of digital collections in Finland will be invited to join in the national – and the European – MICHAEL online-service.

Examples of digital collections and portals from Finland include Museums Online ([http://www.suomenmuseotonline.fi/SIR/smol/museot\\_etusivu\\_en.html](http://www.suomenmuseotonline.fi/SIR/smol/museot_etusivu_en.html)), Vakka Archival Database (<http://www.narc.fi:8080/VakkaWWW/EtuSivu.action>) and the Finnish Historical Newspaper Library (<http://digi.lib.helsinki.fi>).

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Suomen osallistuminen MICHAEL Plus-projektiin perustuu kansalliseen eKAM-yhteistyöhön.

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Kirjastojen, arkistojen ja museoiden eKAM-konsortion toiminta alkoi v. 2003 ja jatkuu vapaaehtoiselta pohjalta. Yhteistyön tavoite on digitoinnin edistäminen Suomessa.

MICHAEL Plus-jäsenet Suomessa ovat Kansalliskirjasto, Kansallisarkisto ja Museovirasto. Projektia hallinnoi Kansalliskirjaston Mikrokuvaus- ja konservointilaitos, Kansallinen digitoitikeskus, Mikkeliissä.

Suomen kansallinen MICHAEL-portaali avataan syksyllä 2007. Ensi vaiheessa portaaliin kuvaillaan jäsenten digitaaliset kokoelmat. Pian sen jälkeen mukaan kutsutaan kaikki kansalliset instituutiot ja organisaatiot, joilla on digitaalisia kokoelmia. Projektin aikana kansallinen portaali yhdistetään yhteiseurooppalaiseen palvelimeen. Esimerkkejä olemassa olevissa kansallisista digitaalisista kokoelmista tai portaaleista ovat mm: Suomen museoiden yhteinen hakuportaali (<http://www.suomenmuseotonline.fi>), Vakka-arkistotietokanta (<http://www.narc.fi:8080/VakkaWWW/EtuSivu.action>) ja sanomalehtikirjasto (<http://digi.lib.helsinki.fi>).

# France

Involvement by cultural institutions from across France in many digitisation programmes over the last ten years has created an important and diverse digital offer. In 2001 a national inventory of digitised collections was established by the Ministry of Culture and Communication (MCC) in support of the national digitisation plan.

Today the inventory describes 1.200 digital collections from nearly 500 institutions: museums, libraries, archives, heritage services... A network for data collection and processing has been established by MCC to encourage public access to the digital heritage through the inventory. This is integrated in the Collections portal on <http://www.culture.fr>, the central access point to French culture. For France, the MICHAEL project is opening up new prospects to publicise the diversity and richness of the French digital offer to all European citizens. MCC is assisted in the MICHAEL project by Dedale.



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Nombre d'institutions culturelles s'impliquent dans des programmes de numérisation pour créer une offre numérique importante et diversifiée. Le catalogue national des collections numérisées en est le reflet, créé en 2001 par le ministère de la Culture et de la Communication (MCC) dans le cadre du plan national de numérisation.

Il décrit 1.200 collections numérisées provenant de près de 500 institutions: musées, bibliothèques, archives, services du patrimoine... La collecte des données repose sur un réseau animé par le MCC encourageant la diffusion numérique du patrimoine public.

L'intégration du catalogue national dans le projet MICHAEL ouvre de nouvelles perspectives pour valoriser la richesse des collections françaises et promouvoir la diversité de l'offre culturelle numérique au niveau européen. Au plan national, les données sont également accessibles par le portail Collections du site [culture.fr](http://www.culture.fr) fédérant l'ensemble des accès aux ressources culturelles en France. Le MCC est assisté par l'agence Dédale pour le suivi du projet MICHAEL.

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# Deutschland Germany



In Germany the cultural sector is decentralised both as a result of the federal system and for historical reasons. The national MICHAEL portal will bring together digital collections from across the cultural sector from the whole country. The German partners in the project – the Federal Archives, the German National Library, the Bavarian State Library, the German Museum, the State Archives of Baden-Württemberg, the Senckenberg Nature Research Society and the Prussian Cultural Heritage Foundation – are documenting digital collections of archives, libraries and museums and also collections of art, technology and nature. Cooperation in the multilingual European MICHAEL project will enhance the worldwide accessibility of the German digital cultural heritage.



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Seit 2006 baut auch Deutschland ein nationales MICHAEL-Portal auf, um deutschlandweit digitale Sammlungen und Bestände aus dem Kulturbereich zu vernetzen und zentral zugänglich zu machen. Die einzelnen digitalen Angebote werden nach verschiedenen Kategorien wie Thema, Zeit oder Ort recherchierbar sein. Der Kultursektor ist in Deutschland aufgrund der föderalen und historischen Struktur dezentral organisiert. Daher sind in Deutschland – im Gegensatz zu anderen Ländern, in denen oft Kulturministerien Partner von MICHAEL sind – sieben große Kulturinstitutionen an der Gründung des Portals beteiligt: das Bundesarchiv, die Deutsche Nationalbibliothek, die Bayerische Staatsbibliothek, das Deutsche Museum, das Landesarchiv Baden-Württemberg, die Senckenbergische Naturforschende Gesellschaft und die Stiftung Preußischer Kulturbesitz. Sie dokumentieren digitale Bestände aus Archiven und Bibliotheken sowie digitale museale Sammlungen aus den Bereichen Kunst, Natur und Technik. Durch die Beteiligung am mehrsprachigen europäischen Portal wird das digitale deutsche Kulturgut auch für ein europäisches und weltweites Publikum besser zugänglich.

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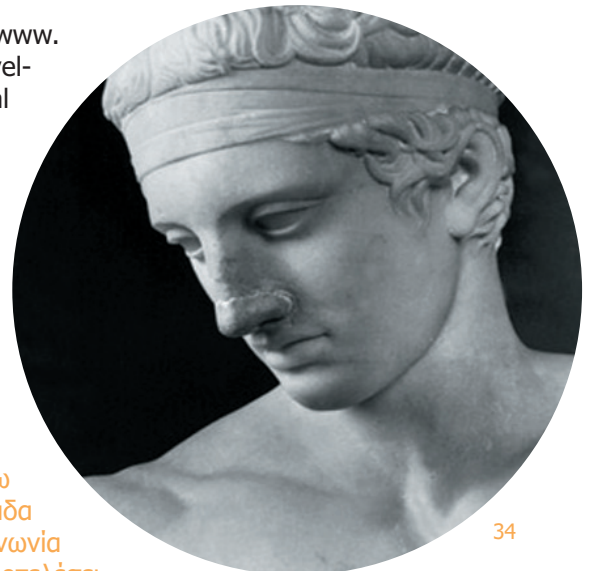
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Since 2004, the Hellenic Ministry of Culture has funded over 200 digitisation projects in cultural institutions throughout Greece, through the national "Information Society" programme. MICHAEL offers an opportunity to create a national cultural network and to provide access to this rich source of digital cultural content. The Greek partners in the project, the Ministry of Culture and the National Technical University of Athens, are working together inviting cultural institutions to register their digital collections.



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The national instance (<http://www.michael-culture.gr>) is being developed by the National Technical University of Athens and will be part of the Ministry of Culture portal (<http://www.culture.gr>).



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Το Ελληνικό Υπουργείο Πολιτισμού και το Εθνικό Μετσόβιο Πολυτεχνείο αποτελούν την Ελληνική συμμετοχή στο MICHAEL. Το Υπουργείο Πολιτισμού έχει ξεκινήσει σημαντική πρωτοβουλία στον τομέα της ψηφιοποίησης από το 2004, χρηματοδοτώντας πάνω από 200 πολιτιστικούς φορείς ανά την Ελλάδα μέσω του επιχειρησιακού προγράμματος «Κοινωνία της Πληροφορίας». Το MICHAEL Plus θα αποτελέσει τη βάση για τη δημιουργία ενός εθνικού πολιτιστικού δικτύου που θα παρέχει πρόσβαση σε αυτό τον πλούτο του ψηφιακού πολιτιστικού υλικού.

Το Υπουργείο Πολιτισμού έχει ξεκινήσει συνεργασία με τους πολιτιστικούς φορείς για την εισαγωγή των ψηφιακών συλλογών στην ελληνική πύλη MICHAEL Plus. Η ελληνική πύλη (<http://www.michael-culture.gr>) αναπτύσσεται με τη βοήθεια του Εθνικού Μετσόβιου Πολυτεχνείου και θα αποτελέσει μέρος της διαδικτυακής πύλης του Υπουργείου Πολιτισμού (<http://www.culture.gr>).

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# Magyarország Hungary



The MICHAEL Plus project in Hungary is hosted by the National Digital Data Archives (NDDA) (<http://www.nda.hu>), part of Neumann Kht. The NDDA is responsible for a cultural database of works of art and related standards and infrastructure. Taking part in the MICHAEL Plus project is enabling NDDA to supplement this item-level database, adding descriptions of digital collections from other cultural institutions. The two databases will be integrated into a common portal which will allow users to search for individual items in a collection, the collections themselves and also for the institutions that maintain the collections. The NDDA receives assistance from the Hungarian Ministry of Education and Culture in its efforts to explore, organize and record digital collections from across Hungary.

For Hungarian (and European) institutions, the MICHAEL initiative is an outstanding opportunity to be accessible, present and available on the Internet at relatively low cost. Presence in the MICHAEL portal offers institutions a way of finding new visitors, users and supporters.

A MICHAELPlus projekt magyarországi gazdája a Neumann Kht. szervezeti keretei között működő Nemzeti Digitális Adattár (<http://www.nda.hu>). Az NDA egy műtárgy szintű kulturális metaadatbázist, valamint az ehhez szükséges adatmodellt, protokolt, szabványt és infrastruktúrát fejleszt és tart fenn. A MICHAEL Plus projekt eredményeként létrejövő gyűjteményi metaadatbázis az NDA számára a már létező, tárgy-szintű metaadatbázis egyfajta kiegészítését, bővítését is jelenti, ezért amellett, hogy az NDA elindítja és szolgáltatja a magyar MICHAELPlus adatbázist és portált, meg kívánja oldani a két adatbázis integrált megjelenítését és kereshetőségét is. Így egy felületről lesznek elérhetők a gyűjtemény egyes tárgyainak, a gyűjteménynek, valamint az azt gondozó intézménynek a metaadatai.



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Az NDA számára a digitális gyűjtemények feltárásában, rendszerezésében és rögzítésében az eddigi partnerek mellett az Oktatási és Kulturális Minisztérium nyújt segítséget. Összességében a MICHAEL Plus projekt a magyarországi (és európai) intézmények számára egy viszonylag kevés erőforrást igénylő, ám kiemelkedő lehetőség arra, hogy az interneten elérhetők, láthatók és megtalálhatók legyenek. A kulturális piac telített, a potenciális látogatók, felhasználók, támogatók megtalálása egyre nehezebb feladat. Erre a nemzeti és európai MICHAEL Plus portálon való jelenlét egy nagyszerű lehetőség.

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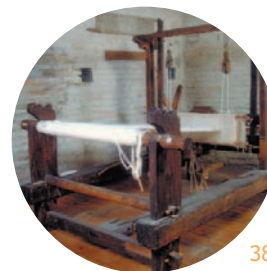


Italia

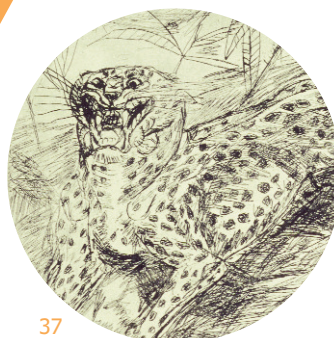
Italy



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MICHAEL ha avviato in Italia il primo censimento sistematico delle collezioni digitali e digitalizzate rese disponibili al pubblico, in rete e off line, da istituzioni culturali di ogni settore.

MiBAC ha organizzato il censimento mobilitando i propri istituti centrali e periferici e coinvolgendo nelle attività le 20 Regioni. Attraverso una partnership con la Conferenza dei Rettori delle Università italiane si è esteso il censimento ai 77 atenei pubblici e privati. La partecipazione di grandi e piccole istituzioni di ogni settore (archivi, biblioteche, musei, uffici di tutela e catalogo...) garantisce la copertura capillare di tutto il territorio nazionale.

Dopo una fase di avvio complessa, l'attività di censimento procede a regime. Un impulso notevole è venuto dall'attivazione dell'interfaccia pubblica <http://www.michael-italia.it> e del portale europeo: la visibilità nazionale e internazionale delle collezioni digitali descritte stimola infatti la partecipazione delle organizzazioni culturali.

MICHAEL italiano procede in stretto coordinamento con il progetto CulturaItalia, il portale della cultura italiana, la cui banca dati viene resa interoperabile con catalogo di MICHAEL. Grazie ai risultati del censimento MICHAEL, CulturaItalia è in grado di identificare i suoi data provider.



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In Italy the MICHAEL project started the first systematic census of on- and off-line, digital collections available to the public from cultural institutions of all sectors. The census is coordinated by the Ministero per i beni e le attività culturali (MiBAC) which mobilized its own central and local institutions, the 20 Italian Regions and the 77 public and private universities (in partnership with the Conference of the Rectors of Italian Universities). Coverage of the entire national territory is guaranteed by involvement of large and small institutions from all cultural heritage sectors (archives, libraries, museums, catalogues and preservation offices). Cultural organisations have been actively registering their digital collections with MICHAEL. Census activity has gone particularly well since the launches of <http://www.michael-italia.it> and the MICHAEL European Service which increased national and international visibility for the Italian cultural institutions.

The project in Italy operates in close cooperation with the CulturaItalia, which is building the Italian culture portal. The two databases are interoperable. As a result CulturaItalia is able to identify collection details through the MICHAEL catalogue and also potential sources for item-level data to be included in its searches.

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# Malta Malta



Heritage Malta is the Maltese partner in the MICHAEL Plus project. As the national agency of the Government of Malta set up in 2002 under the provisions of the Cultural Heritage Act, Heritage Malta has been entrusted with the management of national museums and heritage sites and their collections in Malta and Gozo, including seven UNESCO world heritage sites. In 2004 it took over the management of the Malta Centre for Restoration which now forms an integral part of its operations, thus becoming also responsible for conservation practice. Heritage Malta has under its management 30 different national museums and archaeological sites, all of them offer different aspects of the Maltese history. A collections management system is being evaluated and this will among others enable access to information about museum objects over the Internet. Heritage Malta participates actively in a number of EU projects related to various aspects of cultural heritage, from Culture 2000 to FP6 projects. Current projects include MINERVA EC, Med.Archeos Sites, Mercator amongst others. In the field of digitisation, Heritage Malta collaborates closely with the National Archives of Malta and the Superintendence of Cultural Heritage.



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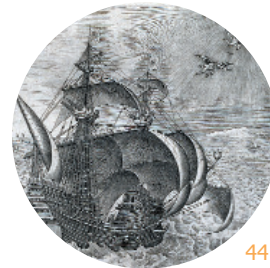
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Patrimonju Malta hija s-sieħba Maltija fil-proġett MICHAEL Plus. Bħala l-agenzija nazzjonali tal-Gvern ta' Malta imwaqqfa fl-2002 bis-saħħa tal-Att dwar il-Patrimonju Kulturali, Patrimonju Malta giet fdata bit-tmexxija tal-mużewijiet nazzjonali, siti storici u l-kollezzjonijiet tagħhom f'Malta u Għawdex. Fl-2004 ħadet f'idejha it-tmexxija taċ-ċentru tar-restawr li issa jagħmel parti integrali mill-operat tagħha. B'hekk Patrimonju Malta hija wkoll responsabbli mill-prattika tal-konservazzjoni. Patrimonju Malta għandha taħt it-tmexxija tagħha 30 muzew nazzjonali u siti arkejologici differenti, li kollha kemm huma joffru fażijiet differenti tal-istorja Maltija. Sistema għall-immaniġjar tal-kollezzjonijiet qiegħda tigi mistħarrġa u din fost sistemi oħrajn se tkun tista toffri access permezz tal-Internet għall-informazzjoni fuq l-oġġetti li jinstabu fil-mużewijiet. Patrimonju Malta hija attiva fil-partecipazzjoni tagħha fi proġetti tal-UE li għandhom x'jaqsmu mal-patrimonju kulturali, minn proġetti ta' Kultura 2000 sa oħrajn taħt l-FP6. Proġetti kurrenti jinkludu fost l-oħrajn MINERVA EC, Med.Archeos u Mercator. Fil-qasam tad-diġitizzazzjoni, Patrimonju Malta tikkollabora mill-qrib mal-Arkivji Nazzjonali ta' Malta kif ukoll mas-Sovrintendenza tal-Patrimonju Kulturali.

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In recent years Dutch archives, libraries and museums have been active in digitising their collections. Some of these collections have been made available to Dutch speaking audiences through the ICN and MUSIP portals. MICHAEL offers the opportunity to make Dutch digitised cultural heritage collections accessible to a worldwide audience through the national and European MICHAEL portals. The multilingual European access point adds extra value to the Dutch cultural heritage by making it available to non-Dutch speakers who are interested in the cultural and scientific heritage.

The Ministry of Education, Culture and Science (Ministerie van Onderwijs, Cultuur en Wetenschap – OCW) and the National Library of the Netherlands (Koninklijke Bibliotheek – KB) are the project partners for the Netherlands.



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Nederlandse archieven, bibliotheken en musea zijn de laatste jaren doende hun collecties te digitaliseren. Deze zijn deels centraal toegankelijk via portals van ICN en MUSIP voor het Nederlandse taal- en cultuurgebied.

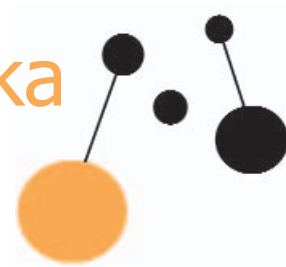
In MICHAEL worden de Nederlandse gedigitaliseerde collecties beschreven en in de nationale en Europese MICHAEL portals op het Internet beschikbaar gesteld, waar ze via een meertalig zoekstelsel voor anderstaligen raadpleegbaar zijn. De toegevoegde waarde van MICHAEL is de centrale ontsluiting voor een wereldwijd publiek, waarmee het Nederlandse culturele erfgoed internationaal beschikbaar komt voor cultureel en wetenschappelijk geïnteresseerden.

De Nederlandse MICHAEL Plus partners zijn het Ministerie van Onderwijs, Cultuur en Wetenschap (OCW) en de Koninklijke Bibliotheek (KB).

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# Polska Poland



The MICHAEL Plus project partner for Poland is the Ministry of Interior and Administration (MSWiA), the ministry responsible for the country digitisation, the Polish Internet Library and the IKONKA programme. Thanks to IKONKA, Polish public libraries have been equipped with computers and given access to Internet. In MICHAEL, MSWiA is working closely with the International Centre for Information Management Systems and Services (ICIMSS). Representatives from the Head Office of State Archives, the Poznan Foundation of Scientific Libraries and the Archaeological Museum in Warsaw have been invited by ICIMSS to collaborate in the project, involving representatives from all memory institutions in identifying collections to be registered in the MICHAEL database. As the number of digital collections available in Poland is still small, an additional goal for the project is to plan a digitisation strategy. The aim of the strategy will be to make attractive resources available on-line for users to complement existing resources and avoid any duplication. Further information about the project, and access to the registered collections, is available through: <http://www.michael-culture.pl>.



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Projekt MICHAEL Plus w Polsce realizowany jest przez Ministerstwo Spraw Wewnętrznych i Administracji (MSWiA), odpowiedzialne za informatyzację kraju, Polską Bibliotekę Internetową i realizujące program IKONKA, którego celem jest zaopatrzenie bibliotek publicznych w sprzęt komputerowy i zapewnienie dostępu do Internetu. MSWiA wspierane jest w działaniach przez Międzynarodowe Centrum Zarządzania i Informacji (ICIMSS), które odpowiada za prace merytoryczne, współpracując w tym celu ze środowiskiem archiwalnym, bibliotecznym i muzealnym. Do koordynacji zadań w tych sektorach zaproszeni zostali przedstawiciele Naczelnej Dyrekcji Archiwów Państwowych, Poznańskiej Fundacji Bibliotek Naukowych i Muzeum Archeologicznego w Warszawie, którzy we współpracy ze środowiskiem wyszukują kolekcje, które następnie rejestrowane są w bazie. Mimo, iż w Polsce wciąż niewielka jest ilość dostępnych kolekcji cyfrowych, to dodatkowym celem projektu będzie ustalenie strategii dygitalizacji, aby dostępne się stały kolekcje najbardziej atrakcyjne dla użytkowników i jednocześnie nie dublujące się lecz komplementarne. Informacja o projekcie i dotarcie do kolekcji możliwe jest ze strony <http://www.michael-culture.pl/>, gdzie zaplanowano wyszukiwanie kolekcji według tematu, okresu historycznego, osób, instytucji.



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# Portugal Portugal



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O projecto MICHAEL Plus é coordenado em Portugal pela Secretaria-Geral do Ministério da Cultura (SG/MC), acreditamos que este projecto irá contribuir em larga escala para disseminar a cultura portuguesa, fornecendo ao mesmo tempo uma importante ferramenta de pesquisa aos cidadãos portugueses para explorarem a herança cultural europeia. Dentro de pouco tempo serão constituídas as equipas de projecto que irão assegurar a implementação do mesmo (nas áreas de tecnologia, catalogação e conteúdos) com a contribuição dos outros organismos do Ministério da Cultura.

Estamos ainda a desenvolver um software baseado em ferramentas OpenSource que irá permitir ligações em tempo real entre o MICHAEL Plus e as base de dados originais assegurando assim a integridade da informação.

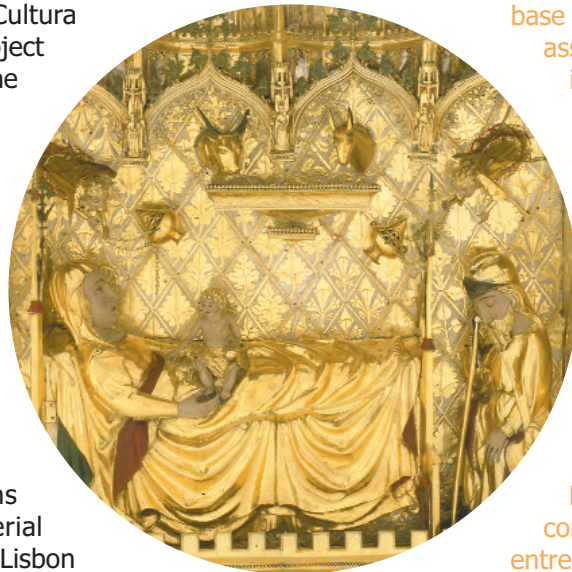
Inserida na 4ª Conferência Ministerial de eGovernment, irá existir uma apresentação do projecto MICHAEL Plus sendo apresentadas algumas coleções Portuguesas. Esta conferência terá lugar entre os dias 19 e 21 de Setembro em Lisboa (<http://www.egov2007.gov.pt>).

O Portal de disseminação do MICHAEL está disponível no endereço <http://www.michael-culture.pt> e alberga toda a informação do projecto em português .

The MICHAEL initiative will make an important contribution in promoting Portuguese Culture all over the World. It will also have a huge impact on Portuguese citizens by giving them the tools to explore the European cultural heritage. The project in Portugal is coordinated by the Secretaria-Geral do Ministério da Cultura (SGMC), which is forming different Project Teams to implement the Project (in the areas of technology; cataloguing and content providers) and work with other institutions within the Ministry. As part of the project, SGMC is enabling interoperability between its MICHAEL database and some existing databases using open source tools to make real-time connections.

There will be a presentation of the MICHAEL project and some Portuguese digital collections during the 4th Ministerial eGovernment Conference in Lisbon on September 19th – 21st 2007 (<http://www.egov2007.gov.pt>).

The national portal is available on <http://www.michael-culture.pt> providing information about the project in the Portuguese language.



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# Slovensko Slovakia



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The Slovak Republic joined the MICHAEL Plus project in June 2007, through the Ministry of Culture of the Slovak Republic and the Cross Czech Company. Thus the project is at an early stage in the Slovak Republic, in spite of this there is a high level of interest. Since the 1990's there have been many digitisation initiatives in the cultural heritage sector in the Slovak Republic. Most of these initiatives have been based in libraries and have focused on the digitisation of manuscripts, books and serials. For example, the Slovak National Library and the University Library in Bratislava took part in UNESCO's Memory of the World programme. The Slovak National Library has also co-operated in projects such as MINERVA and the European Digital Library (EDL). Museums, galleries and other cultural institutions are also involved in digitisation activities. Further information can be obtained from <http://www.ulib.sk> and <http://www.snk.sk>.



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Slovenská republika je členom projektu MICHAEL Plus od júna 2007 prostredníctvom Ministerstva kultúry Slovenskej republiky a spoločnosti Cross Czech. Vzhľadom na krátkosť času sa ešte produkčný modul platformy nelokalizoval. Napriek tomu je záujem Slovenskej republiky o projekt tohto typu veľký, pretože už od 90-tych rokov minulého storočia sa tu realizovalo viacero projektov a iniciatív v oblasti digitalizácie kultúrneho dedičstva. Predovšetkým v knižničnom prostredí sa realizovali projekty zamerané na digitalizáciu starých tlačí, kníh a periodík. Slovenská národná knižnica a Univerzitná knižnica v Bratislave sú zapojené do programu UNESCO Pamäť sveta. Slovenská národná knižnica je zapojená do aj do projektu MINERVA a Európskej digitálnej knižnice (EDL). Rovnako sa do digitalizačných aktivít zapájajú galérie a múzeá. Podrobnejšie informácie je možné získať na webových stránkach <http://www.ulib.sk> a <http://www.snk.sk>.

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# España Spain



For several years, the Spanish libraries, archives and museums have been digitising their collections. However, it was in 2007 that a real digitisation policy was begun to be implemented at national level. The Spanish Commission on digitisation and on-line access to cultural material and digital preservation was created at the Ministry of Culture. Its role is to guarantee the incorporation of Spain in the European Digital Library project and to make its rich and diverse cultural heritage accessible to all the public.

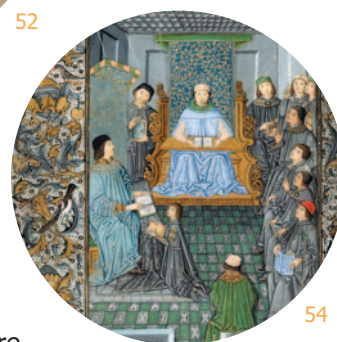


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The National Library of Spain, as part of its project to create the Hispanic Digital Library, is taking part in the MICHAEL Plus project and developing the Spanish national instance at <http://www.michael-culture.es>. Its aim is integrating all the digital collections currently available in Spain and all the cultural institutions involved in this task. The inventory will include the collections of the State archives available via PARES (Portal of Spanish Archives), the portals of Spanish museums being created thanks to the implementation of DOMUS and the digital collections of Spanish libraries included in the Directory of the Department of Library Coordination of the Ministry of Culture in collaboration with the Autonomous Regions. The Spanish instance of MICHAEL will thus offer a comprehensive vision of the Spanish cultural digital heritage.



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Desde hace varios años, las bibliotecas, los archivos y los museos españoles han empezado a digitalizar sus colecciones, sin embargo, es a partir de 2007 cuando se ha empezado a trabajar en una verdadera política de digitalización a nivel nacional. Así, se ha creado en el Ministerio de Cultura la Comisión Española sobre la digitalización y la accesibilidad en línea del material cultural y la conservación digital, con el fin de garantizar la incorporación de España de manera decidida al proyecto de Biblioteca Digital Europea para hacer accesible a todos los públicos su rico y diverso patrimonio cultural.

La Biblioteca Nacional de España, dentro de su proyecto de creación de la Biblioteca Digital Hispánica, participa en el proyecto MICHAEL Plus desarrollando el nodo nacional español en <http://www.michael-culture.es>, en donde aspira integrar todas las colecciones digitales actualmente disponibles en España y todas las instituciones culturales implicadas en esta tarea. Se incluirán en este inventario las colecciones de los archivos estatales que están hoy disponibles a través de PARES (Portal de Archivos Españoles), los portales de los museos españoles que se están realizando gracias a la implantación de DOMUS y las colecciones digitales de bibliotecas españolas recogidas actualmente en el Directorio desarrollado por la Subdirección General de Coordinación Bibliotecaria en colaboración con las Comunidades Autónomas. Sin duda, el nodo español de MICHAEL permitirá ofrecer una visión completa del patrimonio digital cultural español.

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MICHAEL är ett projekt vars mål är att öppna upp Europas kulturarv till världen genom att ge snabb och enkel tillgång via internet till digitala samlingar från olika europeiska länder. Projektet finansieras av eTen som drivs av EU. Kärnan i projektet är en flerspråkig open source plattform med en sökmotor.

MICHAEL Plus i Sverige startade 2006. Svensk huvudman är Uppsala universitet. Projektledare är docent Else Nygren. I projektgruppen ingår personal från länsmuseum i Västernorrland. MICHAEL projektet drivs i nära samarbete med det nationella projektet "Knowledge management in museums" (KMM). Det senare består av 14 delprojekt som alla rör digitalisering av samlingar och utveckling av infrastruktur, rutiner och designkoncept för tillgängliggörande på webben. För närvarande pågår arbete med översättning till svenska av den internationella MICHAELplattformen, samt utbildning av museipersonal i hur digitala samlingar ska registreras. En plan för informations- och kunskapspridning har tagits fram och en första kurs för svenska inregistrerare kommer att äga rum i september. Under 2007 planeras de första samlingarna vara åtkomliga.

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Uppsala University is the partner in MICHAEL Plus for Sweden where it is coordinating activities with support from a project group consisting of staff from the regional museum of Västernorrland. Nationally, the project is working in close cooperation with the national "Knowledge management in museums" (KMM) project. KMM has fourteen sub-projects that deal with the infrastructure, routines and design concepts for digitisation of collections and provision of Internet access. Currently, the project team is translating the user interfaces for the MICHAEL platform into Swedish and training museum staff in preparation for the registration of collections in the national inventory. By the end of 2007 the MICHAEL website for Sweden will have been launched and the first collections will be accessible online.



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# United Kingdom

Museums, Libraries and Archives Council (MLA) is the lead strategic agency for the museums, libraries and archives sector in England and advisor to UK government on digitisation of cultural heritage material. MLA coordinates the MICHAEL project in the UK, working in partnership with its equivalent bodies in Scotland, Wales and Northern Ireland and regional bodies in nine English regions to promote the project to national, regional and local cultural institutions.



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In the UK, the MICHAEL inventory is being populated by incorporating existing inventories of digital content, through cataloguing programmes and by enabling institutions to register their collections directly; also by promoting the creation of catalogue entries through funding agreements for digitisation projects. Partnerships right across the cultural sector are important in supporting national, regional, domain specific and subject specialist cataloguing. A partnership with CYMAL is enabling support for the Welsh language in the MICHAEL UK website and in bi-lingual Welsh-English data entry.



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MLA is working to develop MICHAEL information services in the UK, including specialist services for teachers and learners, regional access points and search services for library users and museum visitors. A benefit of the MICHAEL project will be in enabling cultural institutions of all sizes to promote their digital cultural heritage content via regional, national and international information services to citizens for enjoyment, learning and creative inspiration.

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# User Story

## Jeanette Godau: How I found Austria in North East England

My name is Jeannette Godau. I am from Germany and I am working on my Ph.D.. I am writing about the history of German university studies in Austria and Germany and two 19th century scholars in particular, August Sauer from Vienna and Albert Leitzmann from Magdeburg. They exchanged letters for nearly 40 years and their letters are the basis of my dissertation. My research started with the biographical details of their lives. Being interested in getting a picture of their home towns and living conditions in the nineteenth century, I was looking for an easy way to get the information and found MICHAEL to be very helpful.

I started my research in the MICHAEL portal using the geographical search combined with period: I chose "Austria" and "19th century". Next, I was able to browse the digitised collections that document Austria in that period. It is surprising the collections in which one finds interesting pictures, drawings and photographs!

From the MICHAEL portal I was redirected to the Bowes Museum in North East England that holds a great collection of European fine and decorative arts – including Austrian art. Amongst the digitised items I found a lithograph called "National Costume of Austria" showing the fashion and local costume of the time (<http://www.bowesmuseum.org.uk/collections/objects/category/11/7610>). This was very interesting for me as August Sauer was engaged in ethnological studies. In the 19th centuries there were more than 10 different nationalities and ethnicities in Austria. Without MICHAEL I would never have looked at an English museum collection! MICHAEL broadens my sense of the richness of European historic tradition and shows just how widespread the collections and cultures of Europe are.

Of course, I could always borrow a book from the library in order to get a picture from former times. I see using digital information as complementary – MICHAEL's advantage for me is its 24 hour availability, and the service is free of charge. Also the content is taken from reliable sources – and cultural institutions allow for quotation and academic uses of their content.

See <http://www.michael-culture.org/en/user-stories> for more user stories.



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## Contact

We welcome enquiries about MICHAEL from cultural institutions, national agencies, projects and others with an interest in promoting access to the digital cultural heritage. The benefits of MICHAEL will grow as new countries join the network and as more institutions contribute details of their digital cultural collections to their national instance of MICHAEL.



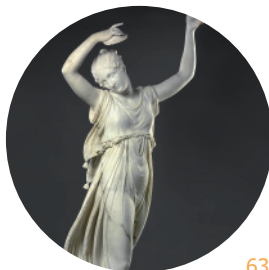
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Cultural institutions are invited to contact us with details about their digital collections for consideration for inclusion in the portal. Please send the title of the collection, a brief description, the URL, your country and your contact e-mail to: [AskMichael@amitie.it](mailto:AskMichael@amitie.it). Your e-mail will be forwarded to a representative from our network of country partners.

National and regional agencies from who are interested in joining the network and in becoming a member of MICHAEL Culture AISBL should contact [info@michael-culture.eu](mailto:info@michael-culture.eu).



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# MICHAEL culture AISBL

The MICHAEL Culture AISBL is an international not-for-profit association under Belgian law as an AISBL (Association Internationale Sans But Lucratif). Its purpose is to continue to maintain and promote the MICHAEL European portal and its software platform beyond the initial period of EU funding and to make the network of MICHAEL partners sustainable.

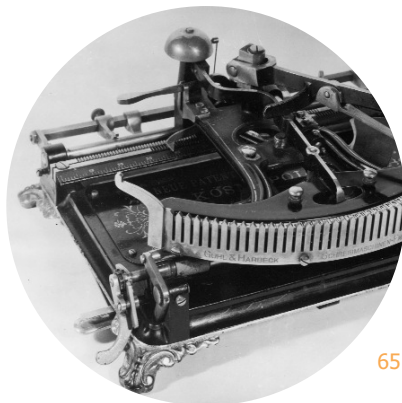
The creation of the MICHAEL culture AISBL is a positive contribution to the ongoing work towards the establishment of a European Digital Library. Its statutes allow the Association to participate in the general vision of "providing services to access cultural digitised resources of museums, libraries, archives and other cultural institutions" and of "promoting the quality and the progress in digitisation of cultural and scientific knowledge and the creation of on-line services".

The initial members of the MICHAEL Culture AISBL are France, Italy and the United Kingdom. Membership is open to all countries who wish to join the MICHAEL European Service and to associates with an interest in sharing our vision.

<http://www.michael-culture.org/en/about>

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# Captions

- 1) Euhelopus zdanskyi, Fossil of a lizard from the Jurassic period, © Uppsala University, Museum of Evolution
- 2) Carl von Linné, Linnaeus statue in Uppsala, Sweden, © Tommy Westberg
- 3) Ornamental initial from a German Aristotle manuscript, © Bayerische Staatsbibliothek
- 4) Placing of a page using vacuum suction cups at the "Grazer Kameratisch", © Bayerische Staatsbibliothek
- 5) Wilhelm Barth, View of Schloss Köpenick, about 1830, © bpk/Nationalgalerie, SMB/Dietmar und Marga Riemann
- 6) A curator digitising and cataloguing a collection of medieval pottery vessels, © Museum of London
- 7) Mask of a Roman warrior horseman, about 1 to 150 A.D., Corbulo in Leiden-Roomburg, © Rijksmuseum van Oudheden, Leiden
- 8) "Full Speed Ahead" – Engine telegraph on an ocean liner, 1931, Berlin, Stiftung Deutsche Kinemathek, © bpk/Hans G. Casparius
- 9) Quality control on a colour-calibrated screen, © Bayerische Staatsbibliothek
- 10) Zoomorphic vessel, White Painted Ware, clay, Bronze Age, © bpk/Antikensammlung, SMB/Ingrid Geske
- 11) Size pattern for balls, Gummitehdas Ltd of Finland (Nokia), 1938, © The National Library of Finland
- 12) Krishna defeats the snake-demon, bronze, about 1300, Southern India, © bpk/Museum für Asiatische Kunst, SMB
- 13) Woman using archives, photographer: Jonathan Goldberg, © MLA
- 14) Laser experiment in a laboratory, about 1970, © bpk/Gerhard Kiesling
- 15) Pedal harp, Tedesco & Raffael, Milan, about 1900, © Museum Vleeshuis/Klank van de Stad, Antwerpen
- 16) Art handling, Royal Museum of Fine Arts, Antwerpen, © Culturele Biografie Vlaanderen vzw
- 17) Folklore, Market Square Brussels, 2006, © Bart Van der Moeren
- 18) A girl with turkeys, photography, 1930-40s, © Georgi Stoyanov Georgiev (photographer), Collection "Faces to Remember", Zafer Galibov
- 19) The First Bulgarian Orchestra in Lovech, photography, 1889, © Collection "Faces to Remember", Zafer Galibov
- 20) Theoderich von Prag (Umkreis), Votive picture of Archbishop John Ocko of Vlasim, Národní galerie v Praze, 1370, © The Yorck Project, GNU Free Documentation License
- 21) Jakub Schikaneder, Company on the terrace, oil on canvas, Středočeská galerie v Praze, 1887
- 22) Eduard Wiiralt, The Heads, 1926, © Tartu Kunstimuseum, Ennistuskoda Kanut
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- 69) Monastery of Bronnbach on a map of the hunting ground in Schönertswald, from 1805, Landesarchiv Baden-Württemberg, © reform Design Stuttgart



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