DIGICLIC

DIGIBIS

Information about enriched digitization, software for Libraries, Archives and Museums and international standards.

An OAI-PMH aggregator and repository that works with DIGIHUB

americanae

Sistema de difusión y recolección de colecciones americanistas

More Information

OCLC WorldCat®

DPLA — DIGITAL PUBLIC LIBRARY OF AMERICA

REDIAL

HISPANA

aecid

HÉ europeana pensar la cultura

OAI-PMH Repository   SRU SRU Server

SUMMARY

Americanae proves that thematic aggregation is possible on a global scale

In July 2016, Americanae, a thematic aggregator promoted by the Spanish Agency for International Development Cooperation (AECID) became operational. This is a second step in the strategy to provide greater visibility to the digital collections of AECID, through its Digital Library. This strategy has been established by the Library Director, Ms Araceli García Martín.

Americanae hopes to gather all the documentation about Latin America from a growing number of specialised institutions, including the Centre d'Information Scientifique et Technique (REGARDS) in Paris, the Ibero-Amerikanisches Institut (IAI) in Berlín, the LLILAS Benson Latin American Studies and Collections of the University of Texas, and the Repositorio del Grupo de Análisis para el Desarrollo in Perú. Over 15 repositories thus provide access to almost 60,000 digital objects.

> DIGIHUB allows for harvesting information from the entire website or from OAI-PMH repositories for a specific domain

DIGIHUB, aggregator and harvester of thematic OAI repositories

Americanae proves that thematic aggregation is possible on a global scale This is because AECID has implemented DIGIHUB, a very robust software, as shown by over 200 Spanish repositories in Hispana, with over 6.6 million records. Any institution that seeks to harvest information from the entire website or from a specific domain can take advantage of the power of the DIGIHUB software to explore the entire web or harvest accessible OAI-PMH repositories for a specific domain.

Futhermore, DIGIHUB can create a directorate of a given domain, so that users can have online information about all available repositories, both those that are simply accessible from the website and those that comply with the OAI-PMH protocol, which is of great interest to users.

In the case of Americanae, all the information can be harvested as long as they have an OAI-PMH repository on the website of the European Network of Information and Documentation on Latin America (REDIAL). DIGIHUB not only imports the minimum Dublin Core format but also imports RDF records according to the ontology of the Europeana Data Model, which makes it very appropriate for the semantic web. ◼

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The Digital Library of the Royal Academy of History is updated to DIGIBIB 9.1

Currently made up of 22,814 digitised works, a total of 357,855 images, the Digital Library of the Royal Academy of History has been updated to version 9.1 of our DIGIBIB library management software.

With this update, the Royal Academy of History seeks to facilitate the dissemination of the invaluable heritage under its responsibility. This Digital Library facilitates access to different bibliographic and documentary collections of the Royal Academy. Manuscripts, Codices, Incunabula, the Archives of Elizabeth II, Salazar y Castro, Fernández San Román, Pablo Morillo, the Count of Cartagena, the Court Library, Large Formats, Prints and Collections of the Cartography and Graphic Arts department.

This Digital Library features the DIGIBIB module, which enriches it with an OAI-PMH repository, a module that, as in all DIGIBÍS management systems, meets the technical requirements of Europeana and, of course, those of Hispana, which allows the holdings of the Royal Academy of History Digital Library to be automatically aggregated and viewed on Hispana and Europeana. ■

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The Virtual Library of Andalucía updated to DIGIBIB version 9.1

The collections of many Andalusian libraries are available to users from the website of the Digital Library of Andalusia, created over a decade ago, in 2003. Over 12,400 digitised works and over 115,000 multimedia objects are available, including manuscripts, maps, photos, videos and audio. The collection of historical press is specially noteworthy, with 549 titles and nearly 100,000 issues.

The Virtual Library of Andalusia uses the DI-GIBIB library management system, which stands out due to its adaptation and updating to the technical requirements and standards of digital and virtual libraries, which include Linked Open Data (LOD) and the generation of the metadata required by Europeana, known as EDM (Europeana Data Model).

The Virtual Library of Andalusia now features EDM 5.2.6

EDM 5.2.6 is one of the updates includes in DI-GIBIB version 9.1, which the Virtual Library of Andalusia has been using since 2016.

Europeana Data Model and Linked Open Data result in user improvements: thanks to EDM, records can be harvested by Europeana and, therefore, they are accessible to a larger audience, while the use of LOD allows for enriching the information of places, people, entities and subjects with links to managed vocabularies, both national and international, such as datos.bne, DBpedia, WorldCat Identities, GeoNames, the SKOS subject heading list and the ULAN vocabulary of the Getty Research Institute. ■

Above, homepage of the Virtual Library of Andalusia, which provides access to the Catalogue, operating with DIGIBIB. It shows an item displayed as a Record and the same item in tagged MARC 21 format.

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DIGIHUB: thematic aggrega

DIGIBÍS bases its corporate strategy on helping memory institutions, such as libraries, archives and museums, in order to make their digital heritage visible. To do this, it features proprietary developments, always compliant with international standards, especially those issued by ISO and W3C, in addition to those specific to libraries (IFLA), archives (ICA) and museums (ICOM), as well as national Spanish adaptations or those of Autonomous Communities.

DIGIHUB, aggregator and harvester of thematic OAI-PMH repositories

The Open Archives Initiative (OAI) has proven effective in harvesting coded information, complying at least with Dublin Core (ISO 15836:2014).

In accordance with that strategy, DIGIBÍS has implemented, in all its programs, DIGIBIB, DIGIARCH and DIGIMÚS, an OAI-PMH repository fed dynamically, so that records entered into the databases, whether in MARC, EAD or LIDO, are converted to Dublin Code automatically. Going one step further, DIGIBÍS has developed a software program, DIGIHUB, that is capable of harvesting and aggregating records in many formats, at least in Dublin Core, in as many repositories as users desire.

Hispana is DIGIHUB

This practice is backed by Hispana, which, thanks to DIGIHUB, is able to harvest and aggregate records, at least in Dublin Core, in 208 repositories that provide access to 6,593,242 digital objects that steadily increase Spanish production of digital heritage. It is also capable, from certain subsets, of forwarding this infor-

mation to Europeana and, once it becomes available, in accordance with the Europeana Data Model (EDM).

Americanae is DIGIHUB

Americanae is a platform established with the same technological base as Hispana, made up of different applications: a metadata harvester using the OAI-PMH protocol, a directory of digital collections and an OAI-PMH repository. i.e. it is based on the same technology as Hispana but in a much wider field, as it harvests and aggregates

DIGIHUB is the application used by HISPANA, the large library of Spanish virtual libraries of the Ministry of Education, Culture and Sport, and AMERICANAE, the System for the Dissemination and Harvesting of Collections about Latin America, an OAI-PMG aggregator and repository of the Ministry of Foreign Affairs and Cooperation, a European portal that aims to gather all the documentation about Latin America existing at different institutions in Europe and around the world.

tor

digital records worldwide, in particular from Europe and the Americas.

In its first months, it already provides access to almost 60,000 digital objects from 15 repositories and to a directorate of 54 digital collections about Latin America from around the world. Thematic aggregators provide a comprehensive overview of the topic, including open acces journals.

New thematic aggregators

As stated in this same newsletter DIGIBÍS has been awarded large contracts for thematic aggregation projects by the different Autonomous Communities. These are expected to come online in the second half of 2016, gathe-

> DIGIBÍS has been awarded more contracts for large thematic aggregation projects this year

ring the entire heritage of libraries, archives and museums from an Autonomous Community in a single consultation point. It is very likely for this thematic aggregation technique based on the OAI-PMH and Dublin Core standards to be applied progressively over the next few years along with the technology from DIGIBÍS. ∎

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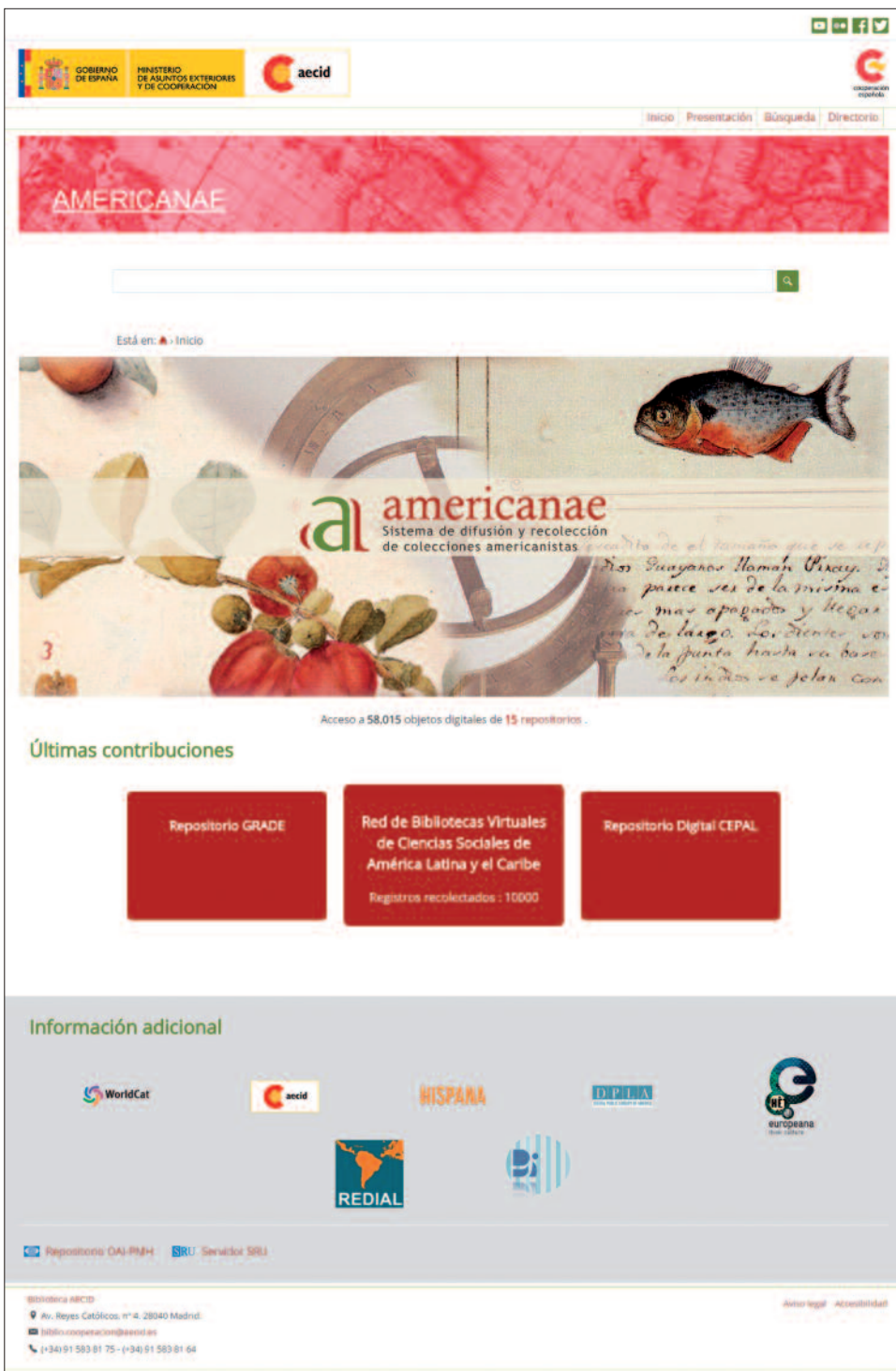
# Presentation of the Félix Ca created with DIGIMÚS

The Félix Cañada Virtual Museum, the result of a partnership agreement between the Gómez Pardo Foundation, the Ignacio Larramendi Foundation and the DIGIBÍS company, which we mentioned in previous issues, was officially presented in a public event on 22 February 2016.

The event, organised by the Gómez Pardo Foundation, ETSIME and the Félix Cañada Museum itself, featuring the collaboration of the Ignacio Larramendi Foundation and the DIGIBÍS company, was held at the auditorium of the Gómez Pardo Foundation. The presentation featured José Luis Parra y Alfaro, Director of the Higher Technical School of Mine Engineers, as moderator; Benjamín Calvo Pérez, who signed the agreement as Chair of the Gómez Pardo Foundation at the time and who was able to support the project until its materialisation; Carmen Díaz Rodríguez, Director of the Félix Cañada Museum; Luis H. de Larramendi Martínez, Chair of the Ignacio Larramendi Foundation; and Francisca Hernández Carrascal, Consultant at DIGIBÍS.

Three people who were closely involved in this project were also present: Félix Cañada, Founder and Benefactor of the Museum that bears his name; Alfonso Maldonado, Commissioner of the Grant; and Tachi Hernando de Larramendi Martínez, Managing Director of DIGIBÍS. There were also words in the memory of Carlos Herce, former Museum Director, who supported and promoted innovation in the Félix Cañada Museum until his death.

Few museums are harvested by Hispana and Europeana

This Virtual Museum, produced by DIGIBÍS, uses the DIGIMÚS museum management system,

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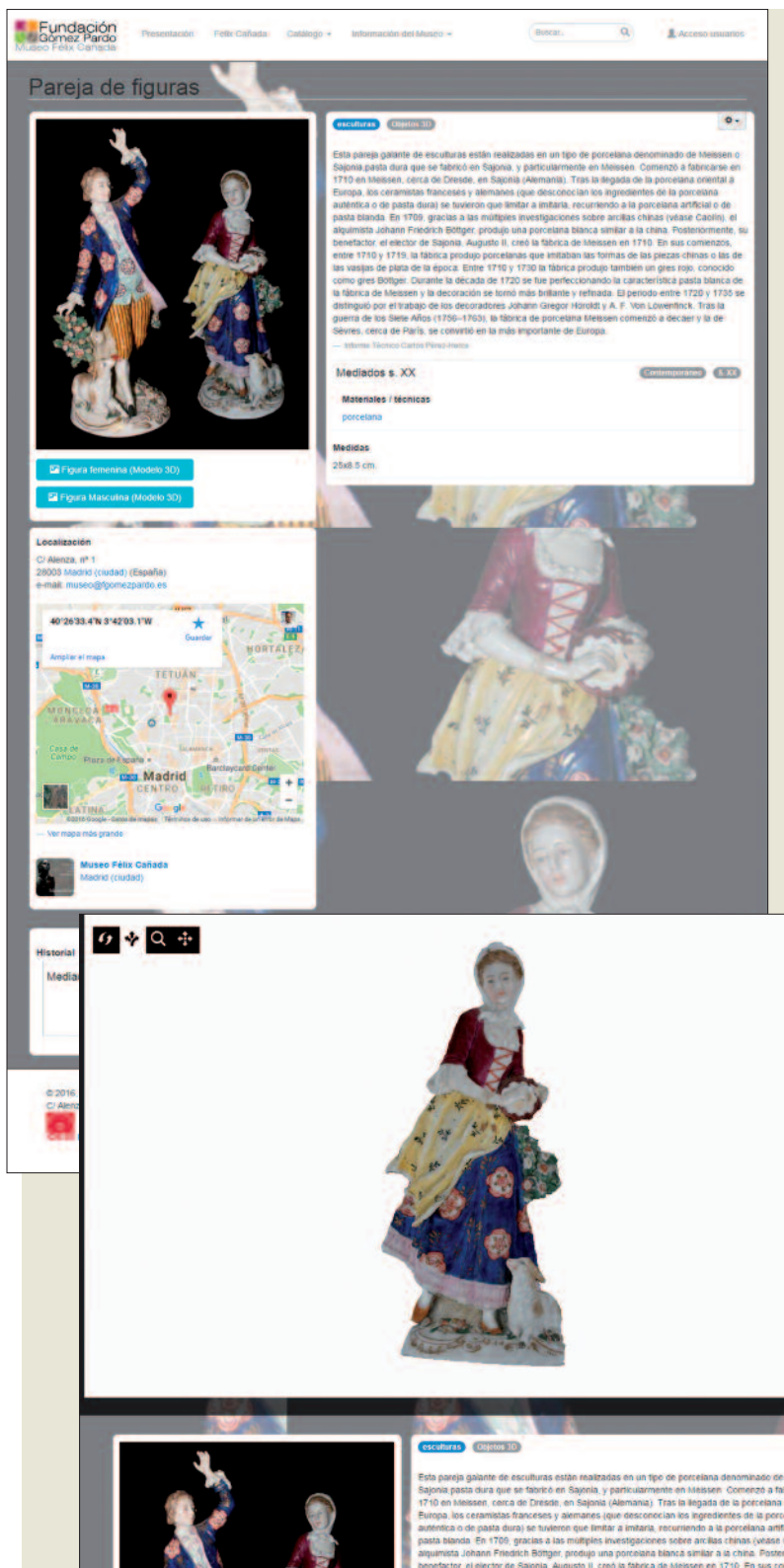
ñada Virtual Museum

These images show a full record of one of the digital objects of the museum, which shows the location map; to the left of these lines, the 3D viewer, which features, below, on the same page, the full record to which the figure belongs, and several close-ups of the same figure in a slightly overhead view.

an online application rigorously updated to international museological standards (LIDO), that supports Linked Open Data technology (LOD) –as all current DIGIBÍS management products– and incorporates an OAI-PMH repository in compliance with the Europeana Data Model. This has made it possible for the Félix Cañada Virtual Museum to be included in and, therefore, be accessible from Hispana and Europeana. These two aggregators of cultural content currently harvest very few museums and the Félix Cañada Virtual Museum is one of them.

As a University Museum of Art, attached to the Faculty of Mines, the Félix Cañada Museum faced issues with making itself visible to the public at large. Thanks to the DIGIMÚS features mentioned, the remarkable collection of paintings, sculptures, drawings, prints, decorative arts and furniture hosted by this museum and collected by Félix Cañada Guerrero, doctor in mine engineering, the Félix Cañada Virtual Museum significantly increases not only its visibility but also its accessibility and dissemination at the national and international levels.

Another one of the DIGIMÚS features implemented by this Virtual Museum are the high-resolution viewer and the 3D object viewer.

This tool also makes it one of the few museums that offer users this visualisation format, perhaps being the only one in the country configured as a digital museum. Visitors will be able to see the detail of brushstrokes in a picture scanned at a very high resolution or rotate and enlarge a bronze or porcelain statue scanned in 3D.

In short, browsing the Félix Cañada Virtual Museum transcends its physical location, making itself available to any user with a computer or a mobile electronic device. ■

GLAM APPLICATIONS

Cervantes, universal maste

The Ignacio Larramendi Foundation and DIGIBÍS have decided to commemorate the 400th anniversary of the death of Miguel de Cervantes by creating a microsite devoted to this personality. It employs similar techniques to those used in the microsites of the Polymath Virtual Library, from that devoted to Menéndez Pelayo to the one featuring "Science and Technology in the American Enterprise", introduced in 2015.

The work has taken place in parallel to the new "Virtual Library on Enlightened Travelling Scientists" and, to complete it, version 9.X of the DIGIBIB software was used as a test bench and showcase of all the new projects and software by DIGIBÍS.

Aggregation techniques

As for all projects of the Foundation, bibliographic information is added using a specific program created by DIGIBÍS for the purpose of adding it to the database created for this purpose. All this information is later catalogued in the description module in RDA/MARC, which dynamically converts it to the Dublin Core format, feeding an OAI-PMH repository at the same time.

The records created feature extensive use of value vocabularies, in compliance with Linked Open Data technology, including: datos.bne.es, DBpedia, Deutschen Nationalbibliothek data.bnf.fr, Library of Congress Linked Data Service and WorldCat FAST.

Linking techniques

As in other projects, field 500 of the MARC format has been used imaginatively, including, according to DBpedia ontology, the following tags: *Editor, Spouse of, Publishers, Influenced by, Participant, Related to,* and others. Thanks to these techniques, users can browse from Cervantes' works

Picture of the Royal Spanish Academy attributed to Juan de Jáuregui until Lafuente Ferrari found it a forgery in 1948. In the opposite page, engraving by Pedro de Hortigosa from a drawing by Luis de Madrazo for an edition of Don Quixote of 1859. Cervantes' signature can be seen under the effigy

to authority records of the publishers that brought to light his works or the authors that gradually published biographies of the great author of Don Quixote, starting with Gregorio Mayans y Siscar.

They are also related to a wide range of websites that cover a spectrum ranging from *Wikipedia* to the many projects that have been dedicated to him on his 400th anniversary.

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r: new Virtual Library

Records of first editions

NOVELS: *La Galatea*, *El ingenioso hidalgo don Quijote de la Mancha*, *Segunda parte del ingenioso caballero don Quijote de la Mancha*, *Novelas ejemplares*, *La gitanilla*, *El amante liberal*, *Rinconete y Cortadillo*, *La española inglesa*, *El licenciado Vidriera*, *La fuerza de la sangre*, *El celoso extremeño*, *La ilustre fregona*, *Las dos doncellas*, *La señora Cornelia*, *El casamiento engañoso*, *El coloquio de los perros*, *Los trabajos de Persiles and Sigismunda*.

THEATRE: *El trato de Argel*, *La Numancia*, *Ocho comedias y ocho entremeses nuevos*, *El gallardo*

español, *La casa de los celos*, *Los baños de Argel*, *El rufián dichoso*, *La gran sultana*, *El laberinto de amor*, *La entretenida*, *Pedro de Urdemalas*, *El juez de los divorcios*, *El rufián viudo*, *La elección de los alcaldes de Daganzo*, *La guarda cuidadosa*, *El vizcaíno fingido*, *El retablo de las maravillas*, *La cueva de Salamanca*, *El viejo celoso*.

POETRY: *Viaje del Parnaso*.

ATTRIBUTED WORKS: *La conquista de Jerusalén por Godofre de Bullón*, *La soberana Virgen de Guadalupe*, *La cárcel de Sevilla*, *Los habladores*, *El hospital de los podridos*, *La tía fingida*.

In total, 109 works were catalogued and made available to the public.

Aggregator: everything published in one page

One of the most important values of this microsite is that it includes the pages published on the Internet this year. We believe that it is the only resource that groups and catalogues them, using the techniques mentioned above, into a single page. This will be of great value to researchers and the curious.

Introduction texts of the Virtual Library

As in other virtual libraries, this microsite features "Introductions", which, in this case, cover the Chair of the Ignacio Larramendi Foundation, Luis Hernando de Larramendi, and the Managing Director of DIGIBÍS, Tachi Hernando de Larramendi, as well as an introductory presentation, which in this case has featured the voice of our polymaths. Thus, the text by Menéndez Pelayo titled "Cultura Literaria de Miguel de Cervantes y elaboración del 'Quijote'" is presented, as well as the aforementioned text by Mayans y Siscar *Vida de Miguel de Cervantes Saavedra*, which was published in his *Complete Works*, a CD-ROM by the Valencian Library and the Ignacio Larramendi Foundation, which can be accessed through the Valencian Digital Library (BIVALDI). ∎

Digitization and metadata creation of the College of Lawyers of Madrid

Since late 2015, DIGIBÍS has been working hard on the digitization of over 18,000 documents, including Deeds, Files and Books of Incorporations, maintained by the Illustrious College of Lawyers of Madrid.

Strong points: digitization of fragile documents and generation of correct metadata

The College of Lawyers of Madrid, present in Hispana since around 2011, hired the specialised services of DIGIBÍS both for an appropriate digitization of the fragile documents under its custody and a correct generation of the metadata essential to disseminate its collections in Hispana and Europeana, including: Dublin Core, METS with PREMIS, METSRights, MARC-XML, Europeana Semantic Elements, Europeana Data Model and ISO2709.

In the future, once the digitization and the generation of the corresponding metadata have been completed, the documents will be available on the website of the College. ■

Above, a record of the Madrid College of Lawyers Library harvested by the national aggregator HISPANA. Below, a search about this Library in Europeana.
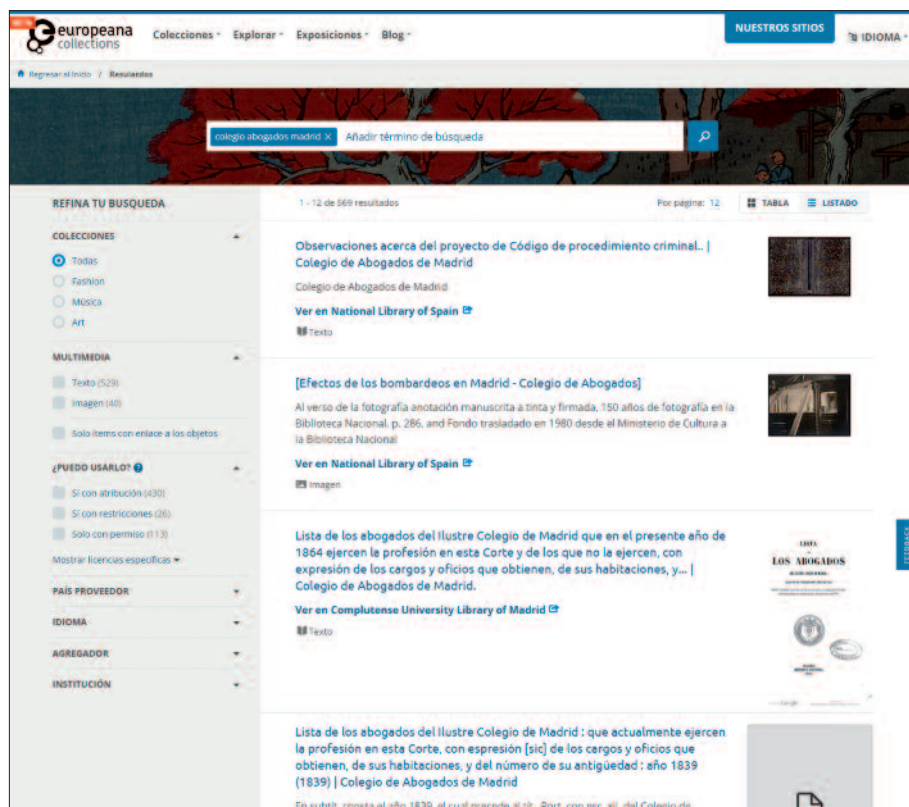
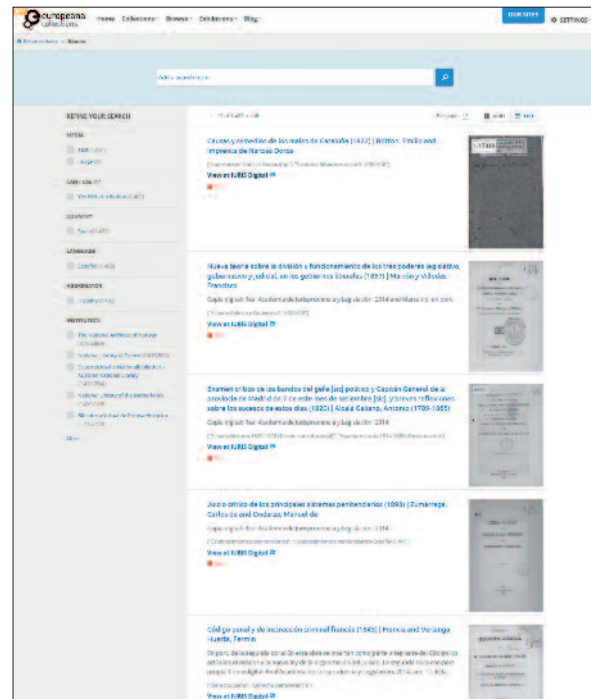# Digitization and metadata creation: R. A. of Jurisprudence and Legislation

IURIS Digital, the Virtual Library of the Royal Academy of Jurisprudence and Legislation, continues to expand its digital catalogue of works. On this occasion, 15,000 new images have been added, corresponding to 27 different items. DIGIBÍS, which has also produced this digital library, has been the one in charge of the digitization process and the corresponding metadata creation.

The IURIS Digital Library uses the DIGIBIB library management system, which allows this virtual library to have an OAI-PMH repository harvestable by national and international aggregators. Thus, the new digital objects will be harvested by Hispana and Europeana, once they have been catalogued, with no further action by librarians.

DIGIBÍS, always keeping up with the updates of standards and protocols, generated the digitization, the metadata currently required for harvesting –and, therefore, dissemination– as well as preservation, such as Dublin Core METS with PREMIS and METSRights, and the Europeana Data Model (EDM).

Among the works digitised, which are already available on the IURIS Digital website, we can mention *Historia de la Revolución Francesa* in three volumes (1898-1900) or *Vocabulario de la economía: ensayo para fijar la nomenclatura y los principales conceptos de esa ciencia* from 1882. ∎

First results page of Iuris Digital in Europeana, the great European library. Cover of the edition in three volumes of 1898-1900 of *Historia de la Revolución Francesa* by Michelet and cover of *Vocabulario de la economía*, by Piernas y Hurtado, published in 1882.

DIGITIZATIONS

Digitization and metadata creation of the Banco de España

In 2016, DIGIBÍS began the digitization of the rare materials kept at the Library Bank of Spain. This institution is very aware of the need to preserve its significant collection as well as to disseminate it to all people.

The 700,000 pages to be digitised over four years, extendable by 2, show the magnitude and significance of this project, especially taking into account the importance of this institution and its library stock, made up of over 326,000 volumes, many of them of great interest.

An institution very aware of the needs of preservation and dissemination

The value of the works it preserves as a source of information about economics, politics and law, often linked to its unique nature, their preservation requirements and their consultation requirements, have made the Bank of Spain consider digitization necessary for a dual purpose: preserving and disseminating its collections.

Over an extendable period of four years, DIGIBÍS will carry out an enriched digitization which will undoubtedly lead to benefits in both objectives. To select the works to be digitised, the Bank of Spain will take into account their material and bibliographic value, their intellectual contents and their relationship with the history of the Bank of Spain, banking and economic history in general.

To prepare for this long digitization and metadata-creation task, DIGIBÍS has given the Bank of Spain a page to follow up on the project, based on its DIGIBIB library management system, which will lead to better results more appropriate for the needs of the project. ∎

On the left, a characteristic auction at the Bank of Spain in Madrid. Below, cover of one of the digitised books, corresponding to the tenth Meeting held in 1842.
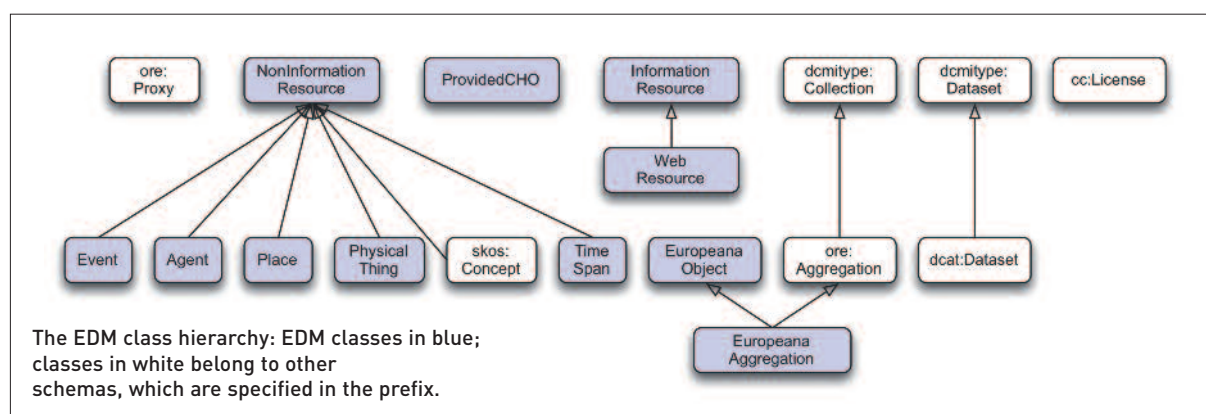
EDM update to 5.2.7

Version 5.2.7 of the Europeana Data Model (EDM) was published on 25 April 2016. The new EDM version includes a very important change as it introduces the property edm:intermediateProvider, which can be used to indicate "the name or identifier of the intermediate organisation that selects, collates, or curates data from a Data Provider that is then aggregated by a Provider from which Europeana harvests". In the aggregation chain, the Intermediate Provider is an organisation different from the Data Provider and the actual Provider.

class svcs:Service in EDM 5.2.7, taken from the SIOC (Services Ontology Module), which is defined as "a web service associated to a site or part of it". This class is used to indicate the existence of a specific protocol or a certain profile to be used.

Likewise, and following goal 2 of the Europeana Business Plan 2016, to "Improve data quality", the necessary components have been added to the dcterms:temporal property, along with other properties such as dc:type, dc:subject, dc:coverage and dcterms:spatial, at least

The EDM class hierarchy: EDM classes in blue; classes in white belong to other schemas, which are specified in the prefix.

This Property was very necessary to respond to the different data-aggregation schemes that have been appearing in the Europeana ecosystem, where specialised aggregators (such as Europeana Sounds), national aggregators (such as Hispana) and technical aggregators that explore new ways for institutions to send content to Europeana (such as Europeana Cloud) coexist. It is also worth noting that the Europeana Business Plan 2016 introduces the concept of expert hubs, which seeks to change the current hierarchical aggregation model and transform it into a network of hubs that share services and data in a web-centric fashion.

Thus, objective 3 of the Europeana Business Plan is to "Innovate the way we aggregate material", which makes it necessary to establish the network of expert hubs and improve data integration. This same idea to explore the capabilities of web services has led to the introduction of

one of which must be present. The list of mandatory elements in EDM can be found quickly in section 2: "Overview of the properties in each class" of the document Europeana Data Model Mapping Guidelines, v.2.3, also published on 25 April 2016.

On 30 May 2015, the document Enhancing the Europeana Data Model (EDM), drafted by Valentine Charles and Antoine Isaac and also known as the EDM White Paper, was published. It discusses how the model should continue to grow, going from managing not only data about cultural heritage but also data about organisations (Organization Profile), datasets (Dataset Profile, collections (Collections Profile) and technical metadata (Technical Metadata Profile). The materialisation of this evolution must be followed with a different document, frequently updated by the Europeana team, the EDM Roadmap, which also provides an idea about the future evolution of EDM. ∎

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DIGIBIB Libraries at Libraries.org

Libraries.org, an international library directorate created by Marshall Breeding, an independent consultant, features 35 virtual libraries using DIGIBIB software in its database.

Marshall Breeding is the creator and editor of Library Technology Guides and libraries.org, a global directory of libraries. He writes a monthly column in the technical journal *Computers in Libraries* and directs the *Smart Libraries Newsletter*

International directorate of libraries, featuring 35 that use DIGIBIB

published by the American Library Association (ALA). He is the author of the annual *Library Systems Reports,* published by the *Library Journal* since 2002 and he was written seven books to date, the latest being *Cloud Computing for Libraries*.

Among the most well known digital libraries featured in libraries.org, we can mention the Virtual Library of Historic Press, the Virtual Library of Bibliographic Heritage, the Virtual Library of Andalusia and the Library of the Royal Academy of History.

DIGIBIB is a software program that allows for online publishing of digitised heritage work and that, through an OAI repository, shares these resources on large aggregators such as Hispana, Europeana and OAISTER.

It also uses Linked Open Data technology, which enables it to link the most important vocabularies, such as VIAF, DBpedia, datos.bne.es or Subject heading Lists in SKOS.
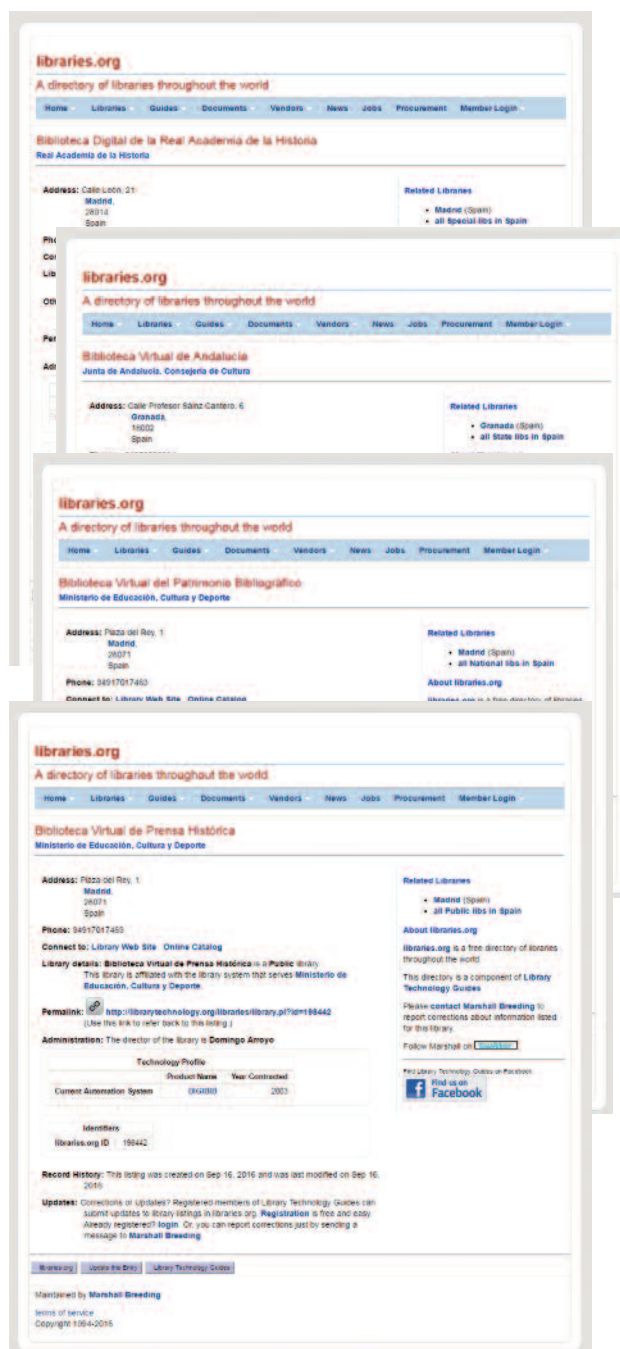
In the case of Europeana, the Larramendi Virtual Library is a case study of the use of the Europeana Data Model (EMD) in addition to the vocabularies mentioned above. ◼