National Documentation Centre

The Digital Repository Service of the National Documentation Centre in Greece: a model for Digital Humanities data management and representation

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The National Documentation Centre / EKT

- Is located at the National Hellenic Research Foundation
- Is operating under the supervision of the General Secretariat of Research & Technology of the Ministry of Education, Research & Religion
- Was founded in the 80s
EKT is a key player in knowledge dissemination in Greece

We collect, document and disseminate quality scientific and cultural digital content.

We measure and record the Greek Research, Technology, Development, Innovation ecosystem.

We help enterprises network, become outward-oriented and collaborate with the research community.

We actively participate in the formation of Nation strategy for Open Science and Open Access.

We aim for wide knowledge dissemination and support Greece’s development and harnessing of its human resources.
We create a single point of access for scientific and cultural content and provide access to reputable information sources, contributing to research, education and life-long learning.

We document scientific and cultural content and disseminate the knowledge the country generates.

We develop and provide access to the Greek National Archive of PhD Theses, the National Union Catalogue of Scientific Journals and Indexes of Greek scientific journals.

We provide content organisations with public services, highlighting the wealth of Greek knowledge in the public digital space.

We participate in national networks and European initiatives focusing on the development of a single open research environment, and we are the national aggregator for Europeana.

Aggregators

Explore thousands of culture and science records, from a number of institutions, in our Aggregators. Make use of the advanced search and filter functions to discover the content that suits your needs.

Science and cultural content

Discover repositories with digital collections, browse library catalogues, search through PhD Theses and scientific publications. Locate primary sources and bibliographic resources to use in education, research, academia, innovation and lifelong learning.

Research Aids

Bibliographic resources and tools, catalogues and databases to use in research, references and for cataloguing aids.

The EKT Digital Library of Science Technology & Culture

EKT’s Digital Library provides access to international and Greek content and offers its users personalized scientific information services.

16,000 science journals
26,000 e-books
54 international databases
23 Greek databases
Digital Services for aggregating, publishing and enriching thousands of digital assets from hundreds of knowledge and cultural organizations
### Volume of visits to our sites

**2017**

- 1,391,902
  - epublishing.ekt.gr
- 1,096,442
  - www.didaktorika.gr
- 874,108
  - www.ekt.gr
- 706,991
  - openarchives.ekt.gr
- 199,194
  - www.openaccess.gr
- 178,127
  - www.epset.gr
- 175,118
  - www.enterprise-hellas.gr
- 157,220
  - repository.edulll.gr
- 137,756
  - www.searchculture.gr

**2016**

- 827,392
  - www.didaktorika.gr
- 764,688
  - epublishing.ekt.gr
- 665,616
  - openarchives.ekt.gr
- 551,556
  - www.ekt.gr
- 215,553
  - www.epset.gr
- 106,997
  - helios-eie.ekt.gr
- 91,756
  - argo.ekt.gr
- 86,708
  - www.openaccess.gr
- 84,389
  - pandektis.ekt.gr
EKT’s Digital Repository Service (DRS)

26 organisations
30 repositories
130,000 objects
EKT’s Digital Repository Service (DRS)

**FUNDING**
through the Operational Programme "Digital Convergence" (2011-2015)

**TARGET AUDIENCE**
Digital Humanities (DH) organizations, Science organizations, Educational organizations

**DELIVERY MODEL**
SaaS (Software as a Service)

**TECHNOLOGIES-SOFTWARE**
Cloud computing, Open source software (DSpace)

**OBJECTIVES**
- to meet EU priorities for open access and economies of scale through the dissemination and re-use of large amounts of data
- to focus on the organisations needs regarding administration and dissemination of content with proper licensing
- to increase the volume of documented, interoperable, open content fed through to EKT’s aggregators for culture and science
Methodology

The methodology used to develop the DRS model built upon several factors:

- the National Documentation Centre long-term experience in developing data administration systems as well as collecting and maintaining high quality data for various purposes and users

- major past and current international practices and initiatives for managing and curating cultural and/or scientific data (Europeana, DPLA, DM2E project)

- an extensive literature review on cultural ontologies and vocabularies used in similar initiatives (CARARE, CIDOC-CRM, EDM, DC, MARC, EAD, MODS, FRBR)

- addressing community needs, the restrictions and the variety of the material (questionnaire to cultural organisations)
Methodology

Questionnaire
114 organisations
(museums, archives, cultural organizations, libraries)

Aims of the questionnaire
- Identify variety of material collected
- Appraise quantity and quality of material documented
- Evaluate community need for such a service
- Assess willingness to share their collections
- Estimate possible restrictions posed by organizational mentalities towards openness
Methodology

![Bar Chart]

- **Books**: 90
- **Journals/Magazines**: 72
- **Maps**: 39
- **Manuscripts**: 37
- **Scores**: 54
- **Multimedia**: 57
- **Audiovisual Material**: 43
- **Graphics**: 35
- **Art**: 25
- **Installations**: 25
- **Monuments**: 3
- **Inscriptions**: 5
- **Natural History**: 2
- **Geology**: 2
- **Performing Arts**: 22
- **Datasets**: 0

**Repositories**

- **None**: 5
- **Don't Know**: 3
- **Proprietary**: 5
- **National Documentation Center**: 13
- **Mesh**: 34
- **LCSH**: 16
- **DDC**: 14
- **Getty Vocabularies**: 2
- **National Library of Greece**: 23
- **Library of Congress Heading**: 16

- **No Answer**: 17
- **Don't Know**: 24
- **None**: 7
- **Proprietary**: 14
- **Lido**: 1
- **Spectrum**: 1
- **Cidoc-Crm**: 4
- **Ead**: 5
- **Unimarc/Marc**: 41

**Services** by EKT
Methodology

Key issues taken into consideration:

- material heterogeneity, specifications and restrictions
- metadata semantic and structural viability and cohesion
- interoperability of data and systems
- data licensing
- data long-term preservation
- user/community studies and respective provisions
Implementation parameters

1. **Community**
   - Support
   - Engagement
   - E-learning
   - Customization

2. **Customization**
   - Rep specifications
   - User centric
   - Automatic implementation

3. **Software**
   - Open source
   - Scalable
   - Hierarchies support
   - Community-developed

4. **Schema**
   - Modular and dynamic
   - DC centric
   - Interoperable

5. **Delivery Model**
   - High availability
   - Sustainability and scalability
   - Robustness
   - Economies of scale
Developing the DRS schema

Approach

a global application profile should have:

✓ sufficient rigidity for interoperability among data
✓ adequate scalability and modularity to include various types of material

Model

✓ based on Qualified Dublin Core (DC)
  ▪ Popularity
  ▪ flexibility, interoperability,
  ▪ OAI-PMH compatible
  ▪ enables dissemination feeds into Europeana and other aggregators

✓ enrichment with elements from different schemata:
  ▪ VRACore, CDWA Lite for the description of images, visual culture and artworks
  ▪ LOM for the description and evaluation of learning resources

Features

✓ a dynamic and modular corpus of elements that can adjust to different types of data needs
✓ boosts up information retrieval by providing fixed elements with the same semantics
✓ IPR issues were also dealt with
Wizard Repository Designing Tool (WRDT)

- A functional dynamic procedure through which users can define all the specifications (branding, information, collections structure, metadata fields, vocabularies etc.) of their future Repository Application.

- As soon as someone fills in their specifications, the WRDT produces the Repository Application automatically.

- The tool provides also all the necessary instructions for the user to configure their future digital repository according to their needs.
Wizard Interface (Greek)
Communicating the service

organize content according to your needs

deposit and document all types of content

Types

- Text
- Cartographic Material
- Sound Recordings
- Projected and Video Material
- 3D Artefacts and Realia
- 2D Graphics
- Scores
- Datasets
The outcome of Wizard design in an DRS application

Welcome to the Digital Repository of the Observatory of the Refugee and Migration Crisis in the Aegean. The Repository is supported by the National Documentation Centre, the University of the Aegean, and the Wenner-Gren Foundation for Anthropological Research. Its aim is to collect, process, document, digitalize and make publicly available various categories of documents connected with the refugee and migration crisis in the Aegean. We aspire for the Repository to constitute a key source of reference and reliable information for the research community in Greece and abroad, as well as the local communities, wider publics, institutions of public administration and humanitarian governance, and populations on the move.

Collections
1. Refugees and Migrants in the Aegean
2. Humanitarian Actors
3. Local Societies
4. Institutions of Humanitarian Governance

Content types

Qualified type
- Newspaper article
- Article
- Documentary
- Interview
- Unknown

Spatial coverage
- Lesvos
- Lesvos Mytilene
- Chios
- Lesvos Ilora

Vocabularies

External links

Title, logo

Header
Production Workflow

1. Repository customization & production
2. Content is deposited in repository
3. Content is published in repository

Support & e-learning:
- eHelpDesk
- eKnowledgeBase
- eLearning
Service Workflow

1. CUSTOMIZATION
   - SaaS wizard

2. PRODUCTION IMPLEMENTATION
   - repositories
   - Content Migration
   - EKT Cloud

3. TRAINING & SUPPORT
   - eLearning
   - eKnowledge Base
   - eHelp Desk
   - Disaster Recovery
Implementation, rolling out & results

Rolling out: 28 repositories +2 under development
Cultural content repository

The repository carries the brand of the content provider: a cultural repository for a small arts organization with varied material

http://repository-tehni-thes.ekt.gr/tehni-thes/?locale=en
Oral history repository

A repository solved the problem of publishing the output of a local history project: an oral history repository

http://repository-e-stories.ekt.gr/?locale=en
Archaeological content repository

The digital archive of the Acropolis restoration programs open to the public: a monument restoration archive repository

http://repository-ysma.ekt.gr/ysma/?locale=en
Learning resources repository (museum)

It's a great solution for opening up a museum’s education resources collection: a museum education repository

http://repository-mca.ekt.gr/mca/?locale=en
Learning resources repository (music)

The repository hosts a unique digital collection to support music teaching in Greece: a **music education repository**

[Image of the Euterpe repository]

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http://euterpe.mmb.org.gr/euterpe/?locale=en
Some features

end users can search by various metadata fields, such as date, creator, subject, keywords and collections.
Some features

digital assets are presented in an elegant, contemporary way

1-Nov-1978
Axonometric view of the general worksite...
Korres, Manolis

1-Mar-1985
Proposal for the rearrangement of the...
Papanikolaou, Alexandros

1-Jan-1978
Proposal for the arrangement of the load...
Zambas, Kostas

Drawings

Drawings

Drawings
Some features

each digital asset has its own page, with thumbnail and its metadata
Results so far...

- 28 repositories were developed
- <100,000 digital assets deposited
- <5 million online visits
- Content feeds EKTs Aggregators, SearchCulture.gr & OpenArchives.gr
- Content ingested by Europeana
- Knowledge transfer and sharing technical know-how with a community of users not specialized in knowledge and data management
- Promoted collaborative actions for re-use of Digital Humanities content and applications for learning purposes
- Published a wide variety of digital content for education, research and life-long learning
- Made more data available for research, esp. for the Humanities (whole archives, audio-visual material, oral history, digitized archaeological research, etc)