

OpenData Hackathon

Δημόσια, Ανοικτά Δεδομένα
Η εμπειρία του Εθνικού Κέντρου
Τεκμηρίωσης



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The National Documentation Centre (EKT) is the National Facility for collection, aggregation, documentation of Science & Technology content and for information and support services on science, research and technology issues. It provides services to the country's entire scientific community acting as a hub for universities, research centres, enterprises, public and private sector bodies.

Means: Development of interoperable e-infrastructures at the national level for the aggregation, organization and dissemination of scientific content

Aim: Open Access to knowledge for all



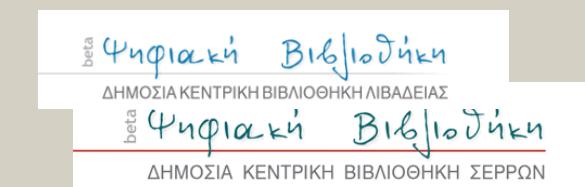
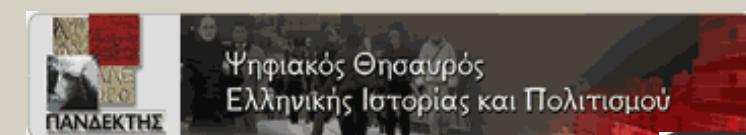
- Multiple content types :
 - **Research output**, e.g. papers, reports, patents, documentation, conferences, books, data: **didaktorika.gr**, **helios-eie.ekt.gr**, etc.
 - **Cultural - Humanities repositories**: from research papers to commented cultural artifacts: **pandektis.ekt.gr**
 - **Educational – reference material**: studies, books, multimedia courses, project outcomes, e.g. **repository.edulll.gr**
 - **Digitised and/or born digital e-books**: **ebooks.serrelib.gr** (*pre-release*)
 - Library automation systems and OPACs: linking the digital with the physical realm, **abekt.gr**, **argo.ekt.gr**
 - **Digital objects in general**



- **Open and reusable:**
 - Digital content, file formats, encoders, etc.
 - Metadata description:
 - *UNIMARC, MARC21 to DC and MODS*
 - Interoperability protocols and interfaces:
 - *OAI-PMH, OAI-ORE, Z39.50, SRU/SRW, Europeana ESE, etc.*
 - Unique and persistent identifiers
 - Independent from repository software,
 - *HANDLE.NET (RFC3652), openURL*



EKT: The National Documentation Centre



openarchives.gr
μηχανή αναζήτησης
ελληνικών ψηφιακών βιβλιοθηκών



Open data provided

- openarchives.gr
 - Unified search in Greek digital libraries / repositories, more than 400.000 items
 - OpenSearch API
 - Example:
<http://openarchives.gr/opensearch/data+mining/page:1/limit:10>
 - Used by the Pantou search engine (University of Macedonia, <http://pantou.lib.uom.gr>) +100s of websites
 - Returns XML data – Atom feed compliant with the OpenSearch Response format.



openarchives.gr OpenSearch results sample

This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
<feed xmlns="http://www.w3.org/2005/Atom" xmlns:opensearch="http://a9.com/-/spec/opensearch/1.1/">
  <title>openarchives.gr : data+mining</title>
  <link href="http://openarchives.gr/opensearch/data+mining"/>
  <updated>2011-12-02 04:12:38</updated>
  <author>
    <name>openarchives.gr</name>
  </author>
  <id>http://openarchives.gr/opensearch/data+mining</id>
  <opensearch:totalResults>148</opensearch:totalResults>
  <opensearch:startIndex>1</opensearch:startIndex>
  <opensearch:itemsPerPage>10</opensearch:itemsPerPage>
  <opensearch:Query role="request" searchTerms="data+mining" startPage="1"/>
  <link rel="alternate" href="http://openarchives.gr/search/data+mining" type="text/html"/>
  <entry>
    <title>
      Ξρήγη της OLAP τεχνικής στην οπτικοποίηση κανόνων Data mining Visualization of Data mining rules using OLAP
    </title>
    <link href="http://openarchives.gr/view/246838"/>
    <id>http://openarchives.gr/view/246838</id>
    <updated>2008-08-27T01:00:00Z</updated>
    <content type="text">...</content>
  </entry>
  <entry>
    <title>
      Τεχνικές εξόρυξης δεδουλεύων και εφαρμογές σε προβλήματα διαχείρισης πληροφορίας και στην αξιολόγηση λογισμικού Data mining techniques and their applications in data management problems and in software systems evaluation
    </title>
    <link href="http://openarchives.gr/view/493960"/>
    <id>http://openarchives.gr/view/493960</id>
    <updated>T01:00:00Z</updated>
    <content type="text">...</content>
  </entry>
  <entry>
    <title>
      Δημιουργία ευφυών συστήματος για αυτόματη σύνθεση μουσικού έργου Automatic interactive music improvisation based on data mining
    </title>
    <link href="http://openarchives.gr/view/484523"/>
    <id>http://openarchives.gr/view/484523</id>
    <updated>T01:00:00Z</updated>
    <content type="text">...</content>
  </entry>
  <entry>
    <title>
      Time series data mining: enhancementsin univariate and multivariate representations distance measures and time series similarity search Εξόρυξη γνώσης από χρονοσειρές: βελτιώσεις σε τεχνικές αναπαράστασης, μέτρησης αποστάσεων και αναζήτησης ομοιότητας σε μονομεταβλητές και πολυμεταβλητές χρονοσειρές
    </title>
    <link href="http://openarchives.gr/view/455608"/>
    <id>http://openarchives.gr/view/455608</id>
    <updated>T01:00:00Z</updated>
    <content type="text">...
  </entry>

```

Open data provided

- **Repositories**
 - National Archive of Doctoral Dissertations
 - NHRF Repository / HELIOS
 - Pandektis
 - Parthenon Frieze
 - Digitised books of Greek Public Libraries
 - Digital Library of EDULLL
- More than 70.000 records of digital items
(books, cultural heritage material, articles, theses, reports, video, educational material)



Open data provided - example

- Getting heraldic monuments data via OAI-PMH
http://pandektis.ekt.gr/pandektis-oai/request?verb=ListRecords&metadataPrefix=oai_dc&set=hdl_10442_2080
- Returns records in Qualified Dublin Core (XML encoding)
- Download entire repository or pre-defined sets (typically collections as they appear in the repository)
- Resumption token (default: 100)



This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
<oai-PMH xmlns="http://www.openarchives.org/OAI/2.0/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.openarchives.org/OAI/2.0/ http://www.openarchives.org/OAI/2.0/OAI-PMH.xsd">
  <responseDate>2011-12-02T23:19:20Z</responseDate>
  <request metadataPrefix="oai_dc" verb="ListRecords" set="hdl_10442_2080">http://pandektis.ekt.gr/pandektis-ext-oai/request</request>
  <ListRecords>
    <record>
      <header>
        <identifier>oai:pandektis.ekt.gr:10442/163472</identifier>
        <datestamp>2010-03-18T07:40:57Z</datestamp>
        <setSpec>hdl_10442_2</setSpec>
      </header>
      <metadata>
        <oai_dc:dc xmlns:oai_dc="http://www.openarchives.org/OAI/2.0/oai_dc/" xmlns:dc="http://purl.org/dc/elements/1.1/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.openarchives.org/OAI/2.0/oai_dc/ http://www.openarchives.org/OAI/2.0/oai_dc.xsd">
          <dc:date>2009-01-26T09:10:59Z</dc:date>
          <dc:date>2009-01-26T09:10:59Z</dc:date>
          <dc:date>2009-01-26T09:10:59Z</dc:date>
          <dc:identifier>81300101,010363</dc:identifier>
          <dc:identifier>http://pandektis.ekt.gr/dspace/handle/123456789/163472</dc:identifier>
          <dc:description>...</dc:description>
          <dc:description>Notes: Photo Kostis Kallivretakis, 2005</dc:description>
          <dc:description>...</dc:description>
          <dc:description>
            Σημειώσεις: Φωτογράφηση τεκμηρίου Κωστής Καλλιβρετάκης, 2005
          </dc:description>
          <dc:subject>Heraldic Monument</dc:subject>
          <dc:subject>Coat of arms</dc:subject>
          <dc:subject>Heraldry</dc:subject>
          <dc:subject>Emblem</dc:subject>
          <dc:subject>Εραλδικό Μνημείο</dc:subject>
          <dc:subject>Ικόσμιος</dc:subject>
          <dc:subject>Ευβληματικός</dc:subject>
          <dc:subject>Εραλδική</dc:subject>
        </dc:dc>
      </metadata>
      <object>
        Religious order emblem (Hospitalis Sancti Iohannis Hierosolymitani Conventus Milites)
      </object>
    </record>
  </ListRecords>
</oai-PMH>
```



Open data provided

- Open bibliographic data
- ARGO bibliographic portal (argo.ekt.gr)
- More than 500.000 bibliographic records from Greek and foreign libraries and various special collections
- Access via the Z39.50 protocol
- Binary, non-developer friendly protocol – need to use specialised open source libraries
- Contact EKT for details of access



Users of EKT open data



... mashups and linked data

Pandektis: Οικόπεδο οικογένειας Αλισάφη - Mozilla Firefox

Άρχιο Επεξεργασία Προβολή Ιστορικό Δελτίου Σέλιδος εικόνες Εργαλεία Βοήθεια

<http://pandektis.ekt.gr/dspace/handle/123456789/163416/>

PANDEKTIS INSTITUTE FOR NEOHELLENIC RESEARCH

Heraldic Database of Greece

Navigation —Choose Collection— Search

Pandektis > Heraldic database of Greece

Coat-of-arms of the Alisafi family

Title: Coat-of-arms of the Alisafi family

Spatial: Settlement: Paros (Paroikia)
Area: Church of Taxiarhes

Temporal: 1601 - 1700

Description: Identification of the bearer: Manouli Alissafis, notable of Paros (17th century)
Historical Notice: Family of notables of Paros, including the owners of a tower-Psychopana (Episkopiana), the founders of the church of Agioi Anargyroi in Paroikia, of various other churches, priests and monks. [•]
Notes: Photo Kostis Kallivretakis, 2005

Is Referenced By: N. Ch. Alprantis, «Οικογένειες και οικόπεδα της Πάρου» [«Families and coats-of-arms of the families of Ermoupolis and Gavalas in the Episkopiana of Milos»], 5/1985, p. 42-119; A. Orfanis μεταρρυθμίνοντα νοού της Πάρου, [«Post-Byzantine churches of Paros»], Αρχείο των Βιωμάτων της Ελλάδος, 9/1961, 10/1964

Type: Heraldic monument

Research Title: Heraldic Monuments of Greece

Research Center: Institute of Neohellenic Research/National Hellenic Research Foundation

Research Supervisor: Leonidas Kallivretakis

Rights Holder: Institute of Neohellenic Research/National Hellenic Research Foundation

Subjects: Heraldic Monument
Coat of arms
Heraldry
Emblem

Zoom Applet

Pandektis: Heraldic database of Greece - Mozilla Firefox

Άρχιο Επεξεργασία Προβολή Ιστορικό Δελτίου Σέλιδος εικόνες Εργαλεία Βοήθεια

<http://pandektis.ekt.gr/dspace/handle/123456789/20221>

Heraldic data overview (faceted browsing)

MAP • TIMELINE

Χάρτης Δορυφόρο Υβριδι

POWERED BY Google 100 μιλ. 200 χλμ.

©2008 Διάδομενο χάρτη Mapa GISrael, Basarsoft, AND, Geocentre Consulting, Tele Atlas - Όροι χρήσης

Region	Settlement	Historical Period
27 Attiki	3 Agia Marina (island of Leros)	114 13th-15th century
75 Crete	1 Agia Marina Monastery (island of Milos)	118 16th-17th century
82 Dodecanese islands	2 Agidili (island of Naxos)	83 18th-19th century
27 Ionian islands	1 Akrotiri (Kydonia-Hania, island of Crete)	8 20th century
93 Kyklaides Islands	2 Apirathos (island of Naxos)	
9 Northern Aegean Islands	27 Athina	
10 Peloponnese	3 Chalki (island of Naxos)	

Όλοι οι πρώτοι

www.ekt.gr

Future plans for open data at EKT

- Repository open data:
 - OpenSearch
 - SRU/W
 - Learning Objects standards (e.g. LOM)
 - Linked Open Data
- CRIS open data
 - CERIF, Linked Open Data
- Scientific data sets



Open data used by EKT

- Catalogues of repositories and Open Access journals
 - ROAR, OpenDOAR, DOAJ
- IPR / publisher policies data
 - SHERPA / ROMEO



Nice to have open data

- Open Citation Index (worldwide)
- Reference indexes / catalogues of journals, conferences
- Books in Print databases (e.g. for Greece)
- Authority files / registries for authors
- Authority files / registries for organisations
- Thesauri / subject categories (e.g. National Library)
- Scientific corpora





Thank you for your attention!



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