



**4th International Symposium on  
Information Management in a Changing World**  
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# **The Performance Evaluation of the Information Retrieval System of the Europeana Website**

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# Outline

- Cultural heritage and digitization
- Europeana
- Turkey and Europeana
- Aim
- Scope
- Method
- Findings
  - Usage of Boolean operators
  - Usage of Turkish characters
  - Relevancy
- Evaluation
- Further studies

# Cultural Heritage and Digitization

*Cultural heritage*; all collections which consist of artistic or symbolic materials and which are transferred from past to the future for humankind (Jokilehto, 2005)

*Digitization* is an operation of conversion of an analog document to the machine-readable form (Coyle, 2006)

# Europeana

- European Digital Library
- The aim is digitization of library, museum and archive materials of Europe and easy access to them
- Text, sound, image, video...

The screenshot shows the Europeana website interface. At the top, there is a navigation bar with 'Home' and 'My Europeana' on the left, and 'Choose a language' on the right. Below the navigation bar is the Europeana logo, which consists of a colorful circular graphic and the text 'europeana think culture'. To the right of the logo is a search bar with a 'Search' button and a 'Help' link. The main content area features a large banner for 'Europeana 1989 - now live' with the subtitle 'Journey through the fall of the Iron Curtain.' and a 'Visit' button. Below the banner are two sections: 'From the blog' with an RSS icon, and 'Featured Item' and 'Featured Partner'. The 'Featured Item' section displays a watercolour painting of birds and plants, with a caption: 'Watercolour paintings of possibly a pied wagtail with a red gooseberry plant on the left and a tree sparrow and its chick with a'. The 'Featured Partner' section displays the logo for 'Crawford Art Gallery' and a description: 'Crawford Art Gallery, a National Cultural Institution and regional art museum for Munster, is dedicated to the visual arts, both historic and contemporary. Located in the heart of Cork city, beside the Opera'.

Home My Europeana Choose a language

europeana think culture Search Search Help

Europeana 1989 - now live  
Journey through the fall of the Iron Curtain.  
Visit

From the blog

Featured Item

Featured Partner

Watercolour paintings of possibly a pied wagtail with a red gooseberry plant on the left and a tree sparrow and its chick with a

crawford art gallery cork  
ailear crawford chorcaigh

Crawford Art Gallery

Crawford Art Gallery, a National Cultural Institution and regional art museum for Munster, is dedicated to the visual arts, both historic and contemporary. Located in the heart of Cork city, beside the Opera

# Turkey and Europeana

- Access IT Project

*(Accelerate the Circulation of Culture through Exchange of Skills in Information Technology Project)*

- 50,000 documents from Turkey
  - National Library
  - General Directorate of State Archives
  - General Directorate of Libraries and Publications

# Aim

Access to the cultural heritage content and existence a proper information retrieval system

The information retrieval performance of Europeana was evaluated in terms of access to Turkish content

# Scope

Some sample queries were performed on the system

The system was tested for the following expectations:

- The retrieval effectiveness
  - by using Boolean operators
  - for different document formats
  - for Turkish characters

Furthermore, the relevancy of the search results was examined



# Method

- Boolean operators;
  - AND, NOT
- Turkish characters;
  - Especially â, û, î...etc. characters take place in Turkish historical documents
- The relevancy
  - Fields of creator, contributor, relation, description and subject



# Usage of Boolean Operators and Case Sensitivity

**Target query:** Katip Çelebi (person – any format)

Query	Result
Katip Çelebi	0 document
katip çelebi	0 document

# Usage of Boolean Operators

**Target query:** Katip Çelebi (person – any format)

Query	Result		Format	
	Related	Unrelated	Text	Image
katip <b>AND</b> çelebi	-	-	-	-
kâtip <b>AND</b> çelebi	6	1	6	1
kâtip <b>not</b> çelebi	-	4	4	-
kâtip <b>NOT</b> çelebi	4	-	4	-
«kâtip çelebi»	6	-	5	1



Search ▾

katip AND çelevi

Search

Help

No items found

# Usage of Boolean Operators

**Target query:** Tarihte Göçler ve İskân (text format - document)

Query	Result
tarih AND iskân	0 document
tarih AND iskan	0 document

# Usage of Turkish Characters

**Target document:** Tarihte Göçler ve İskân (text)

Query	Result	Description
iskan	18 documents	the exact document is not in results
iskân	74 documents	the exact document is in results

## Explore Europe's cultural collections

iskân

Search

[Refine your search](#)

[Help](#)

Matches for: [iskân](#) > COUNTRY:turkey

### Filter your search:

By media type

TEXT (74)

By language

By date

By country

Turkey (74)

By copyright

By provider

Include content contributed by users

### Legend:

Image

Video

Text

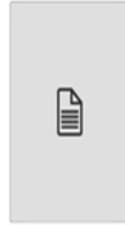
Sound

3D



Results 13 - 24 of 74 Page: 1 2 3 4 5 6 < >

Like



Güzergâhda toplanan Ermenilerin Haleb'e ...



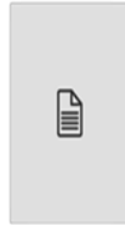
Sevk edilecek Ermeniler'in İstanbul'a



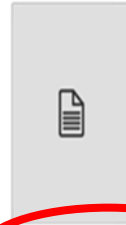
Mahall-i âhardan iskân için gelmiş olan ...



Liva'dan ihrac olunacak Ermeniler'in Kon...



Konya'nın Koçhisar kazasında iskân



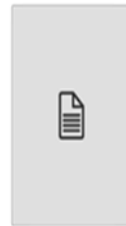
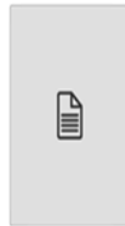
Tarihte Göçler ve İskân



Ermenilerin Ermeni köylerinde yerleşti...



Sevk edilecek Ermeniler'in Zor, Musul



# Usage of Turkish Characters

Query	Result		Format		
	Related	Unrelated	Text	Image	Sound
ya <b>g</b> mur	2	-	1	-	1
ya <b>ğ</b> mur	8	4	8	1	-

# Relevancy

Query	Result	
	Related	Unrelated
Evliya Çelebi	19	1





Search

Evliya Çelebi

Search

Help

[Return to search results](#)[< Previous](#) [Next >](#)

## Erba'üne Hadîsen

**Description:** "Hadis başları kırmızı mürekkepledir. Sırtı ve kenarları kahverengi meşin, satırları ebru kâğıt kaplı mukava bir cilt içerisindedir. 39 ab de İmam Kuşeyrî hakkında Aziz Mahmud Hüdaî Efendi'nin yazısı, 41 b-96 a'da Tezkiret'lî-Evliya çevirisi, 96 b'de Aşık Çelebi'nin Şakayık zeylinden bir alıntı, 97 a-101 b'de Tarik-i Nakşibendî risalesi vardır, Abdullah Öztemiz'den satın alınmıştır."

**Date:** 1226 (1810)

**Type:** text

**Identifier:** 06 Mil Yz A 1163

**Language:** Arapça

**Rights:** National Library of Turkey

**Provenance:** National Library of Turkey

**Data provider:** National Library of Turkey

**Provider:** Department of Information Management, Hacettepe University

**Providing country:** Turkey

[Auto-generated tags](#) ▶

### Search also for:

#### Title

[Erba'üne Hadîsen](#) (115)

#### What

[text](#) (5163141)

#### Provider

[National Library of Turkey](#) (45181)  
[Department of Information Management, Hacettepe University](#) (47105)

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# Evaluation

- Usage of Boolean Operators fall behind to access the related results
- Some relevancy problems with especially more than one keyword
- «NOT» operator did not work properly within the system

# Evaluation

- Some problems also exist for the query results that were created by using Turkish characters such as “â”, “û”, etc.

## **Further Studies**

- Need of optimization and feature enhancement studies about information retrieval systems of digital libraries



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