



**DL.org**

Digital Library Interoperability,  
Best Practices and Modelling Foundations

**Assignment**

**Scenario 2**

**“2010 Odyssey in Athens”**

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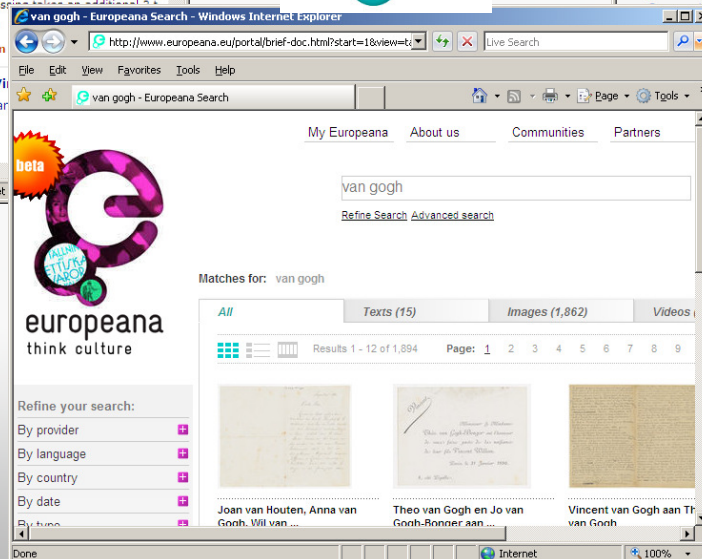
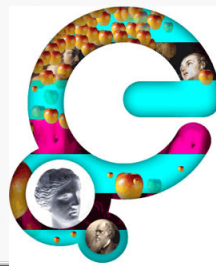
# Scenario

## **2010 Odyssey in Athens”**

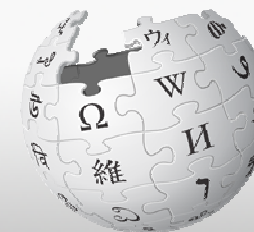
digital librarian D. has been given the task of designing an information discovery service that integrates 3 different services: Wikipedia, Amazon and Europeana. The objective of the service is to offer to the user, for a given topic:

- an account of the topic (taken from Wikipedia)
- a list of resources in Europe related to the topic (Europeana)
- a list of the available publications on the topic (Amazon)
- the links between these 3

# DLs (?) involved



amazon.com



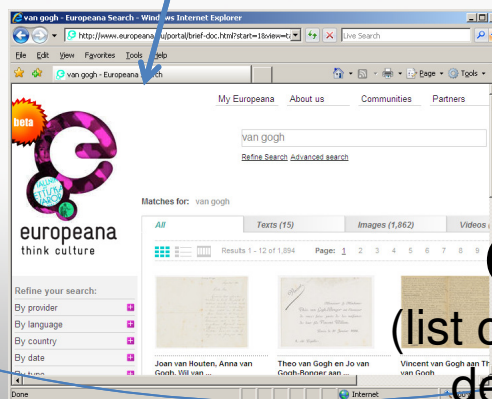
# Interoperability Scenario



**Compound**  
(list of items w. preview,  
description & link)



**Text** (paragraphs)



**Compound**  
(list of items w. preview,  
description & link)

# Preliminary analysis 1/2

## Needs

integrate data and possibly services from 3 different sources in a single interface (portal)

## Original constraints

- we have to deal with web-based systems which supposedly provide API/webservices
- in the case of Europeana and Wikipedia, authentication is not required
- in the case of Amazon, authentication is required only for purchases
- if authentication is performed, the query results will depend on (or be ordered in accordance to) the user profile

# Preliminary analysis 2/2

## Outcomes

- compound information object

## Our solution

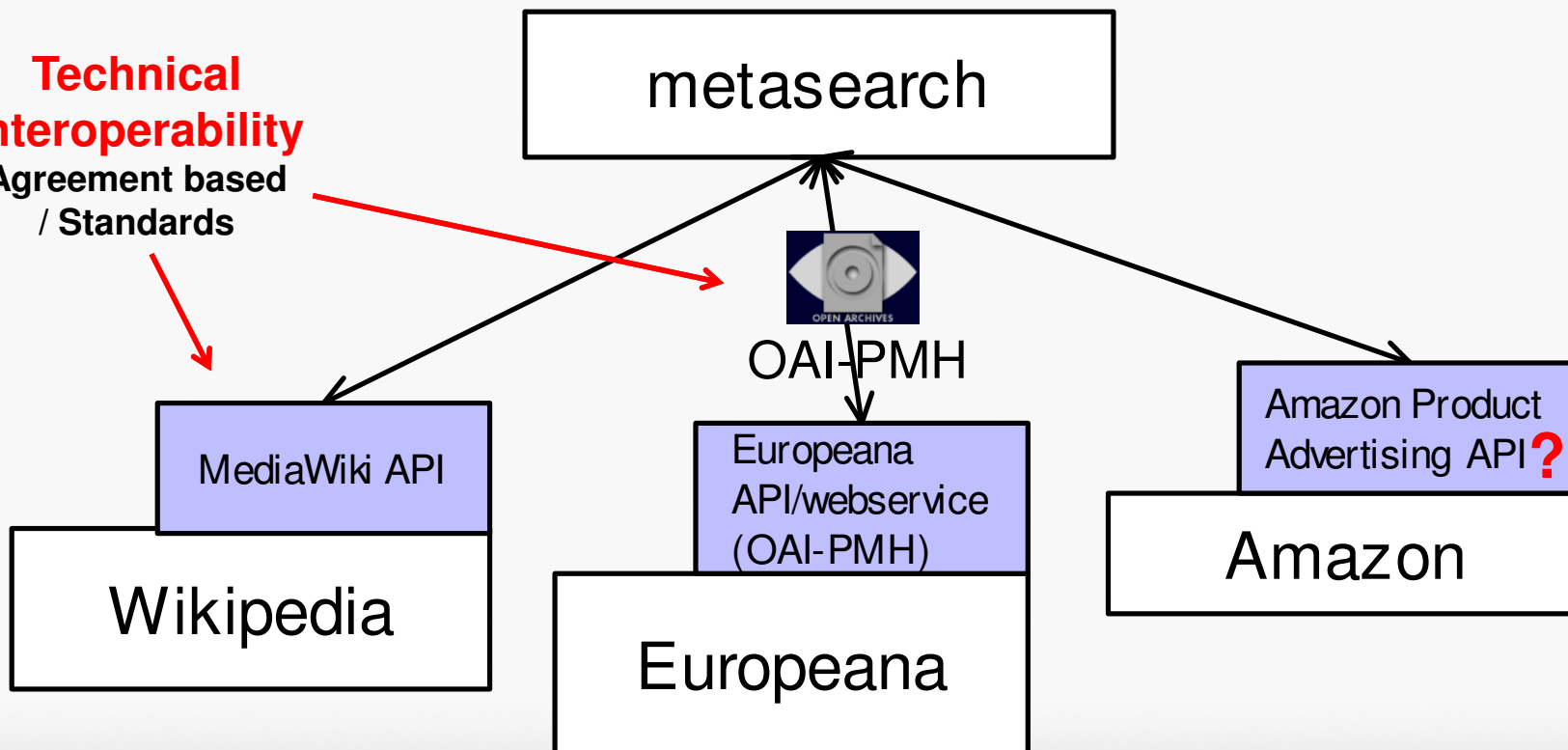
- mediator

## Presented issues involved

- semantic interoperability: syntax (date, language)
- technical interoperability: protocols, etc
- organizational interoperability: licensing/copyright
  - combine user access policies from the different sources
  - licensing of the three sources

# Foreseen solution

**Technical interoperability**  
Agreement based  
/ Standards



**Content Aggregator – Mediator based**

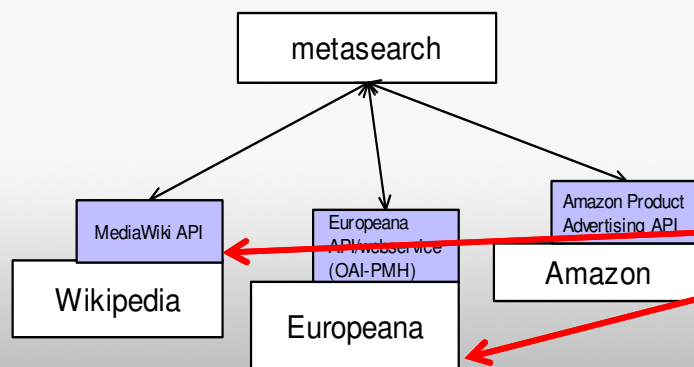
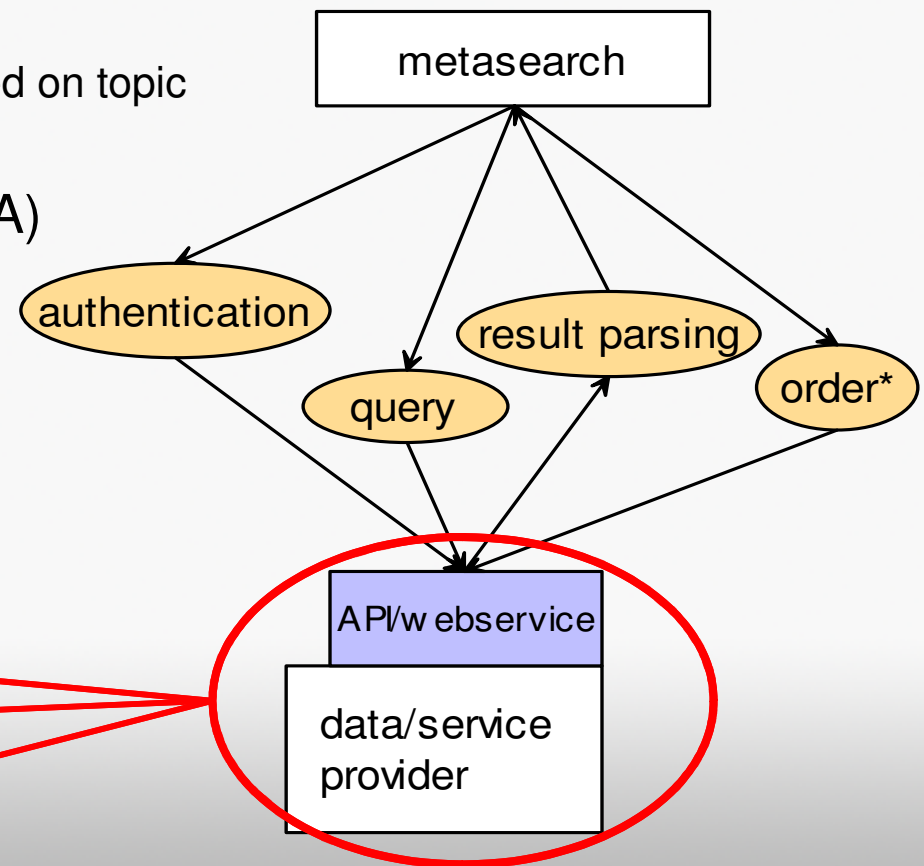
# Copyright/licensing issue

	Wikipedia	Europeana	Amazon
statement	<p>From the terms of use:</p> <p>“You can re-use content from Wikimedia projects freely, with the exception of content that is used under “fair use” exemptions, or similar exemptions of copyright law”</p>	<p>From the terms of use:</p> <p>“Unless otherwise indicated in relation to specific elements of the Website, you are free to:</p> <p>Share - to copy, transmit, publish, make available, reproduce, distribute, extract, re-utilise, display and store the content of this Website in all forms, formats and media throughout the world;</p> <p>Transform - to alter, transform, translate, create adaptations, summaries or extracts of the content of this Website or to make other derivative works based on the content;</p> <p>Under the following conditions:</p> <p>Attribution - You must give attribution to Europeana and the institution(s) whose name appears in connection with the content of the Website and keep all attribution information intact (but not in any way that suggests that those attributed endorse you or your use of the Website or its content);</p> <p>Non-commercial - You may not share or transform the Website or its content for commercial purposes.</p> <p>Copyleft - Any transformation of the Website or its content must be distributed under the same or compatible licensing conditions as these Terms of Use.”...</p> <p>For any sharing or transforming of the content of the Website, you must make these Terms of Use clear to others. The best way to do this is by placing a link to the Terms of use.</p>	<p>From the LICENSE AND SITE ACCESS:</p> <p>“This license does not include ... any collection and use of any product listings, descriptions, or prices; any derivative use of this site or its contents; ... any use of data mining, robots, or similar data gathering and extraction tools. This site or any portion of this site may not be reproduced, duplicated, copied, sold, resold, visited, or otherwise exploited for any commercial purpose without express written consent of Amazon. You may not frame or utilize framing techniques to enclose any trademark, logo, or other proprietary information (including images, text, page layout, or form) of Amazon without express written consent. You may not use any meta tags or any other “hidden text” utilizing Amazon’s name or trademarks without the express written consent of Amazon. Any unauthorized use terminates the permission or license granted by Amazon. You are granted a limited, revocable, and nonexclusive right to create a hyperlink to the home page of Amazon.com so long as the link does not portray Amazon, or its products or services in a false, misleading, derogatory, or otherwise offensive matter. You may not use any Amazon logo or other proprietary graphic or trademark as part of the link without express written permission.”</p>
then	Open system	Open system, respect prescriptions	Ask for permission → <b>organizational interoperability</b>



# Functionalities

- Authentication – Amazon only unless for personalization
- Query ← getObject(topic)
  - Discover objects by querying based on topic
  - Return result set
- Result parsing ← makePage(W,E,A)
  - Creates new resource
  - Displays the resource
- Order – Amazon only



# User interface 1/2

## Search mask

Metasearch	Hi [user's name]	
Search for	<input type="text"/>	<input type="button" value="search"/>

# User interface 2/2

## Result mask

Results for query: xxx

Hi [user's name]

Description (Wikipedia)

[<link>](#)

Objects (Europeana)

Preview 1	<a href="#">title &lt;link&gt;</a>	Author
Preview 2	<a href="#">title &lt;link&gt;</a>	Author
Preview 3	<a href="#">title &lt;link&gt;</a>	Author
.		
.		
.		
Preview N	<a href="#">title &lt;link&gt;</a>	Author

Publications (Amazon)

Preview 1	<a href="#">title &lt;link&gt;</a>	cost	buyit
Preview 2	<a href="#">title &lt;link&gt;</a>	cost	buyit
Preview 3	<a href="#">title &lt;link&gt;</a>	cost	buyit
.			
.			
.			
Preview N	<a href="#">title &lt;link&gt;</a>	cost	buyit

# User model/attributes

**The foreseen system should contain the three sets of attributes in order to avoid inconsistency**

Wikipedia	Europeana	Amazon
<ul style="list-style-type: none"> <li>•Username</li> <li>•Password</li> <li>•Real name</li> <li>•Group names</li> <li>•User's edits</li> <li>•&lt;Email&gt;</li> <li>•&lt;Gender&gt;</li> <li>•Editing: specification of language</li> <li>•Editing: appearance of date and time</li> <li>•Editing: time zone</li> </ul>	<ul style="list-style-type: none"> <li>•Username</li> <li>•Password</li> <li>•Email</li> <li>•Country</li> <li>•Language settings</li> <li>•IP address</li> <li>•Date and time of access</li> <li>•Past requested pages</li> </ul>	<ul style="list-style-type: none"> <li>•Name</li> <li>•Password</li> <li>•Email</li> <li>•Birth data</li> <li>•Payment options</li> <li>•Shipping address</li> <li>•List of past orders</li> </ul>

# User model/attributes

## Authentication information

Wikipedia	Europeana	Amazon
<ul style="list-style-type: none"> <li>•<b>Username</b></li> <li>•<b>Password</b></li> <li>•Real name</li> <li>•Group names</li> <li>•User's edits</li> <li>•&lt;Email&gt;</li> <li>•&lt;Gender&gt;</li> <li>•Editing: specification of language</li> <li>•Editing: appearance of date and time</li> <li>•Editing: time zone</li> </ul>	<ul style="list-style-type: none"> <li>•<b>Username</b></li> <li>•<b>Password</b></li> <li>•Email</li> <li>•Country</li> <li>•Language settings</li> <li>•IP address</li> <li>•Date and time of access</li> <li>•Past requested pages</li> </ul>	<ul style="list-style-type: none"> <li>•<b>Name</b></li> <li>•<b>Password</b></li> <li>•Email</li> <li>•Birth data</li> <li>•Payment options</li> <li>•Shipping address</li> <li>•List of past orders</li> </ul>

# User model/attributes

## Attributes to be used as language clue (semantic interoperability)

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# User model/attributes

## Attributes to be used as date/time format clue (semantic interoperability)

Wikipedia	Europeana	Amazon
<ul style="list-style-type: none"> <li>•Username</li> <li>•Password</li> <li>•Real name</li> <li>•Group names</li> <li>•User's edits</li> <li>•&lt;Email&gt;</li> <li>•&lt;Gender&gt;</li> <li>•Editing: specification of language</li> <li>•Editing: appearance of date and time</li> <li>•Editing: time zone</li> </ul>	<ul style="list-style-type: none"> <li>•Username</li> <li>•Password</li> <li>•Email</li> <li>•Country</li> <li>•Language settings</li> <li>•IP address</li> <li>•Date and time of access</li> <li>•Past requested pages</li> </ul>	<ul style="list-style-type: none"> <li>•Name</li> <li>•Password</li> <li>•Email</li> <li>•Birth data</li> <li>•Payment options</li> <li>•Shipping address</li> <li>•List of past orders</li> </ul>

# User model/attributes

Generating an integrated user model (?)

**BUT keep authentication info separate**

