The INDICATE e-Infrastructure enabled semantic search service is a very important step towards the use of semantic technologies and cloud computing by the Digital Cultural Heritage community. Cultural metadata are transformed from their original format to a semantically richer representation. Furthermore the values of specific elements of the dataset such as countries, persons and languages, are linked to external sources (like DBPedia www.dbpedia.org). Through this process, that is called semantic enrichment, additional information for the person, country or language of interest is provided. The very important outcome of this procedure is the service of answering to queries comprised of human meaningful terms such as “Politician”, “Painter”, “Mediterranean Countries” et al.

Results

Scalability and elasticity.

<table>
<thead>
<tr>
<th>Method Used</th>
<th>Time in Millisecs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Host</td>
<td>22,383.937ms (~6.2hrs)</td>
</tr>
<tr>
<td>Local Cluster</td>
<td>5,020.430 (~1.39hrs)</td>
</tr>
<tr>
<td>Okeanos Cloud</td>
<td>2,965.000 (~49 min)</td>
</tr>
<tr>
<td>Amazon Cloud</td>
<td>1,422.000 (~23.7 min)</td>
</tr>
</tbody>
</table>

Low Cost
- Processing: $0.68 per node per hour (Total cost for indicate pilot 1.7 €)
- Storage: $0.11 per Gb per month

Contacts
Project Manager: Rossella Caffo (rosa.caffo@beniculturali.it)
Technical Coordinator: Antonella Fresa (fresa@promoter.it)
e-mail: info@indicate-project.org
web-site: www.indicate-project.eu

Query the semantic repository
https://indicate-gw.consorzio-cometa.it/sparql-test

Semantic Search Examples
- “Find collections from Mediterranean countries referring to living artists.”
- “Find collections about people that have made a work of art and their origin. Also find the persons’ profession and a depiction of their work.”