



<http://www.eclap.eu>

# The ECLAP semantic model and search capabilities

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DISIT-Lab, Distributed Systems and Internet Technologies

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# Partners



CENTRO TEATRO ATENEO  
CENTRO DI RICERCA SULLO SPETTACOLO



SAPIENZA  
UNIVERSITÀ DI ROMA

ESMAE | POLITÉCNICO  
DO PORTO

Imaa  
museum of  
archaeology &  
anthropology



bellone  
maison du spectacle



University of Glasgow | Department of  
History of Art



Fondazione RINASCIMENTO  
digitale

nuove  
tecnologie  
per i beni  
culturali

FILMS  
DE  
FEMMES



UNIVERSITY OF AMSTERDAM

museum



Diputació  
Barcelona

Institut del Teatre

mae

Centre de Documentació  
i Museu de les Arts Escèniques



artea



INSTITUTE  
OF POLISH  
CULTURE  
University of Warsaw  
Faculty of Polish Studies



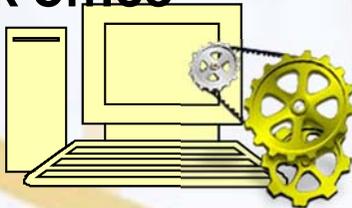
országos  
színháztörténeti  
múzeum  
és intézet

DARIO FO E FRANCA RAME



FONDAZIONE FABBRICAEUROPA  
PER LE ARTI CONTEMPORANEE

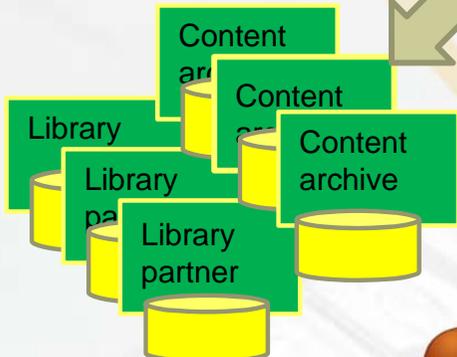
Automated  
Back office



ANY content



ANY content



UGC, web page,  
comments



Metadata

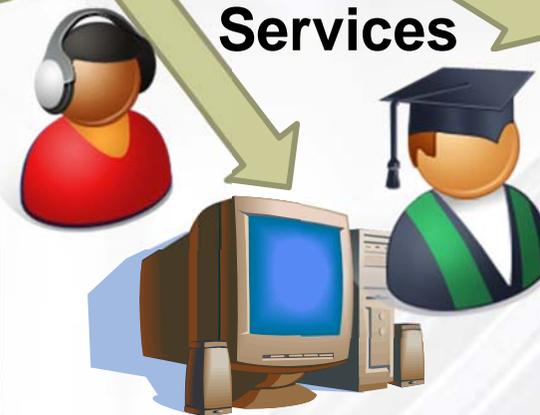


-PC, MACos, linux, ...  
-iPhone, iPod,  
Windows Mobile, .....

Search/Query



Agg. Content  
Content  
Services



## ■ **Content Aggregation**

- Providing content towards Europeana

## ■ **Content Distribution** toward several channels

- For education and entertainment
- to PC/Mac/Linux; mobile: iOS, android, WP7

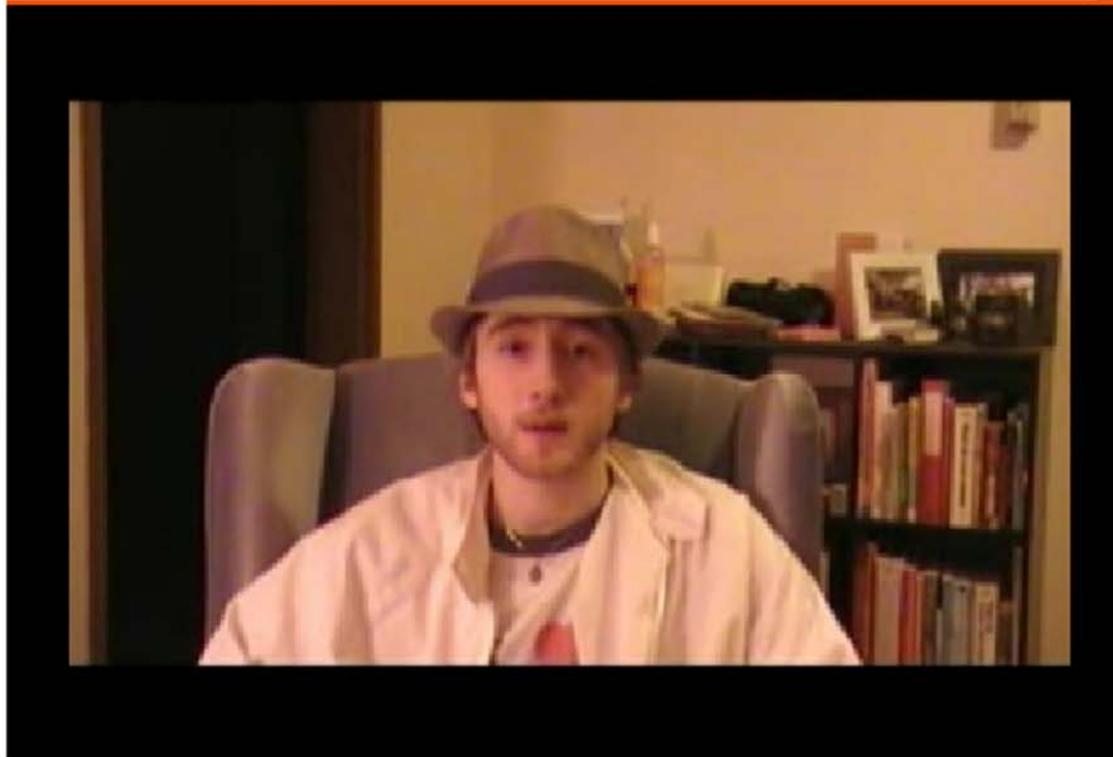
## ■ **Networking and Social Services**

- User groups, discussion, forums, mailing lists
- Connection with social network for share and contact gathering
- Events setup and management, mailing notifications

# Video About the Portal

- Click to see the video about ECLAP:
- <http://bpnet.eclap.eu/drupal/?q=home&axoid=urn:axmedis:00000:obj:c4b624c7-1efb-4741-8a96-f22b6a368e35>

Watch Your Step - Episode 1-Size of Movement



METADATA

**Title**  
Watch Your Step - Episode 1-Size of Movement

**Subject**  
Movement

**Description**  
Episode 1 of Watch Your Step, the show that brings you the performing arts in different ways. Today's episode is over a dance subject: Size of Movement, and is illustrated through solo Charleston. When you're done watching, head over to our blog: <http://chknfoot.blogspot.com/> Original can be found on [http://www.archive.org/details/WatchYourStep-Episode1-sizeOfMovement\\_274](http://www.archive.org/details/WatchYourStep-Episode1-sizeOfMovement_274). Creative Commons license: Attribution 3.0 United States

**Technical**

**Classification**

**IPR information**

SORT BY

ACTIONS

Average:  
☆☆☆☆☆  
not yet ranked, be the first one to rate this content.

Add Annotation

Recommend

Add to Playlist

Mark as favorite

Mark as featured

Download for PC

Download MPEG21 for PDA Windows Mobile 6.5

Download MPEG21 for PC

View for PC

View MPEG21 for PDA Windows Mobile 6.5

View MPEG21 for PC

COMMENTS

SIMILAR OBJECTS

**Europeana Open Culture 2010: Highlights, Tweets & Pho**  
Photographs, tweets and highlights from the Europeana Open Culture 2010 conference in Amsterdam, October 14th-15th, as well as the pre-conference day in The Hague on October 13th.  
143 Hits Rating ★★★★★ 5 **Actions**

**Monteaucuto**  
From the CD 'When the Blackbird Sings' where there are reworkings of original songs Tuscae Gentes traditional Tuscan lullabies, work songs, songs of lumberjacks courses endorsed by the Apenn ...  
595 Hits Rating ★★★★★ **Actions**

time: 118 ms ()

Suggesting Similar Objects!

Similarity metrics

Several actions..

FEATURED

(1-10 of 16 in 343 ms)



PHO-HARMOS2010-ESMAE1 CdM

ESMAE's String Quartet performance at HARMOS Festival 2010 3rd March 2010 at Casa da Música (Sala 2)

463 Hits Rating ★★★★★

Actions



Senso

Opening scene

324 Hits Rating ★★★★★

Actions



you PARA DISCO

presented their performance "you e-Carlo. You PARA | DISCO is the

Actions



shastu

29 CHRISTMAS ISLAND



driphifras

15 FRENCH POLYNESIA



kuslechi

16 SRI LANKA, Kurunegala



Viva Faliero!

Traditional Tuscan inn song from the CD 'Viva Faliero' of Tuscae Gentes (Daniel Poli, Anna Granata, Ugo Galasso, Giuseppe Cornacchia, Nicola Mitolo, Francesco Castagnoli, Rocco Zecca)

1010 Hits Rating ★★★★★

Actions



A kopasz énekeső

Ionesco: The Bald Soprano, actor László Lálfy, Örkény Theatre

221 Hits Rating ★★★★★

Actions



User Manual MyStoryPlayer

user manual for MyStoryPlayer

SORT BY

KEYWORD CLOUD

CLASSIFICATION

List of Terms

- Genre
- Historical period
- Management ad organisation
- Performing Arts
- Subject

GROUPS

POTENTIAL COLLEAGUES

nicola



Nicola Mitolo, Male, 43  
ITALY, Toscana, Firenze

ErikLint



erik lint, Male  
NETHERLANDS, Noord-Holland

lottebelice



Lotte Belice Baltussen, Female, 29  
NETHERLANDS, Noord-Holland

serena



Marco Serena, Male, 29  
ITALY, Toscana

Julia Becker



Julia Becker, Female, 27  
GERMANY, Bayern

Potential friends

- phistestasla  
26  
ECUADOR, Orellana
- shastu  
29  
CHRISTMAS ISLAND
- driphifras  
15  
FRENCH POLYNESIA
- kuslechi  
16  
SRI LANKA, Kurunegala
- hetheruno  
15  
MALDIVES, Raa

phistestasla proximity details

languages:	
favorites:	
location:	
interests:	
friends:	
activity:	
age:	
school_job:	

[Add to your friends](#) [Details](#)

1 2 next last

networking

Suggested  
Potential  
colleagues

Similarity  
metrics  
based on  
static and  
dynamic  
user  
aspects

- any types
- archive
- audio
- blog
- crossmedia
- document
- excel
- flash
- forum
- groups
- html
- image
- page
- pdf
- playlist
- slide
- smil
- tool
- video

SEARCH RESULTS (1-10 of ...)

- 

**Semantic Processing and Management for Multi**  
Scenarios, Multichannel Social Mobile Medicine, Architecture for Multichannel Management, Mobile Medicine Content, Content Access and technical requirements, Intelligent content, AXMEDIS format; Rec ...  
407 Hits Rating ★★★★★ Actions Relevance
- 

**Meet the Data Ingestion Team**  
Collaboration and the Europeana Group of Projects Meeting, "The Hague September 2010"  
13 Hits Rating ★★★★★ Actions Relevance
- 

**Requirements Meeting, Sept. 2010, 1 of 4, Rome**  
Requirements Meeting, Sept. 2010, 1 of 4, Rome, from 9,30 to 11,30  
14 Hits Rating ★★★★★ Actions Relevance 20
- 

**Europeana Data Aggregator Agreement FINAL**  
Europeana data aggregator agreement available in the Europeana portal  
19 Hits Rating ★★★★★ Actions Relevance 20
- 

**EUROPEANA Aggregators' Handbook**  
The overall aim of the handbook is to provide sufficient information to aggregators that wish to submit data to Europeana and become sustainable partners of the service. The handbook first addresses t ...  
31 Hits Rating ★★★★★ Actions Relevance 20
- 

**TEST - Image from A Midsummer Night's Dream, Barton/**  
Image from A Midsummer Night's Dream, Barton/Napier, Royal Shakespeare Company, May 1977 Tom Holte : photographer Theatre: Royal Shakespeare Theatre Theatre Company: Royal Shakespeare Company Ri ...  
6 Hits Rating ★★★★★ Actions Relevance 20
- 

**Moodle Presentation - What is Moodle**  
A brief presentation of Moodle, an open source learning management system (www.moodle.org) , updated 4th Feb 2010.  
45 Hits Rating ★★★★★ Actions Relevance 20
- 

**Data Quality: the effects on Europeana**  
Collaboration and the Europeana Group of Projects Meeting, "The Hague, 29 September 2010"  
21 October, Pisa, Italy. ECLAP (C)

**SEARCH FILTER**

Resource category

Format

- + document (84)
- + archive (14)
- + video (9)
- + audio (8)

Type

Group

Classification - Genre

- + Interview (2)
- + Other (1)

Classification - Historical Period

Classification - Management & Organization

Classification - Performing Arts

Classification - Subject

Creator

Content language

- English (125)
- + Italian (6)
- + Dutch (3)
- + French (2)

Duration

Video quality available

Device

Published by

Original metadata language

Upload time

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**SORT BY**

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**KEYWORD CLOUD**

---

**CLASSIFICATION**

List of Terms

A large set of content item formats >300

A large set of faceted results

Back you PARA | DISO



click on red Button to Rec



Timeline navigation interface with multiple horizontal bars and markers.

**Annotation info**  
 Scene description: annotation video on video  
 Start-end: 00:00:01 - 00:06:17  
 Duration: 00:06:16  
 Place:  
 Who is present:  
 Scene Date:  
 Objects in the scene:  
 Type: SideAnnotation  
 URI: SideAnnotation\_1360745\_004411000

**Video reference info**  
 Title: CTA UNIROMA presentation video  
 Reference starts at: 00:00:01  
 Reference ends at: 00:04:25  
 Reference duration: 00:04:24  
 Video URL: http://bpnet.eclap.eu/axmedis/348/00000-348ee46d-ef2b-41d3-b135-

Annotations

Watch Your Step - Episode 1-Size of Movement  

 info swap video

Cricket in the Fist  

 info swap video

CTA UNIROMA presentation video  

 info swap video

1st day 3 Full Test, HD test  

 info swap video

Interview with... part1  

 info swap video

Search for video annotations:

Place: undefined  
 Character: undefined + -  
 Object: undefined + -  
 SceneDate at undefined  
 Refers to: undefined

Search Annotations

Search for title experiences:

Search Experience

Results:

- Found 20 annotations in 13 video
- Video you PARA | DISO
    - 00:00:01-00:06:17.7 [this is a test annotation](#)
    - 00:00:01-00:06:17.7 [annotation video on video](#)
    - 00:00:01-00:06:17.7 [you paradiso and europeana presentation reproduced synchronously](#)
    - 00:00:02-00:04:17 [you paradiso and Richard Schechner about performing arts](#)
    - 00:00:11-00:06:17.7 [no description](#)
    - 00:00:31-00:01:31 [dancers](#)
    - 00:00:40-00:01:56 [no description](#)
  - Video Cricket in the Fist
  - Video Moodle Presentation - What is Moodle
  - Video CTA UNIROMA presentation video
    - 00:01:05-00:02:41 [examples of performing arts](#)
  - Video Drunken
  - Video European Open Culture 2010: Highlights, Tweets
    - 00:00:01-00:06:30.5 [europeana video on video](#)
    - 00:00:17-00:02:38 [here you can insert a description of your annotation that will be visible on mystoryplayer](#)
    - 00:00:21-00:01:16 [europeana and Eclap people](#)
    - 00:00:30-00:02:39 [no description](#)
    - 00:01:51-00:04:56 [no description](#)
  - Video Watch Your Step - Episode 1-Size of Movement
  - Video European Open Culture 2010 - impressions
    - 00:00:01-00:05:18.8 [European Video Presentations](#)
    - 00:00:35-00:00:58 [Europeana](#)
    - 00:00:45-00:02:27 [no description](#)
  - Image ECLAP Kick-off meeting partners photo
    - 00:00:01-00:00:50 [test annotazione su immagine](#)
    - 00:00:01-00:00:20 [eclap kick off pictures](#)
  - Image Eclap Women

Audio Visual annotation  
 navigation and share  
 recording and share  
 experiences

# VIDEO about MyStoryPlayer

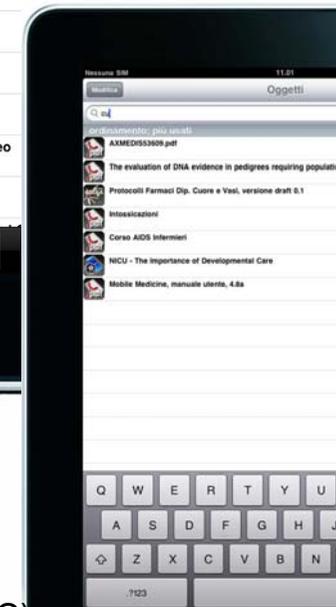
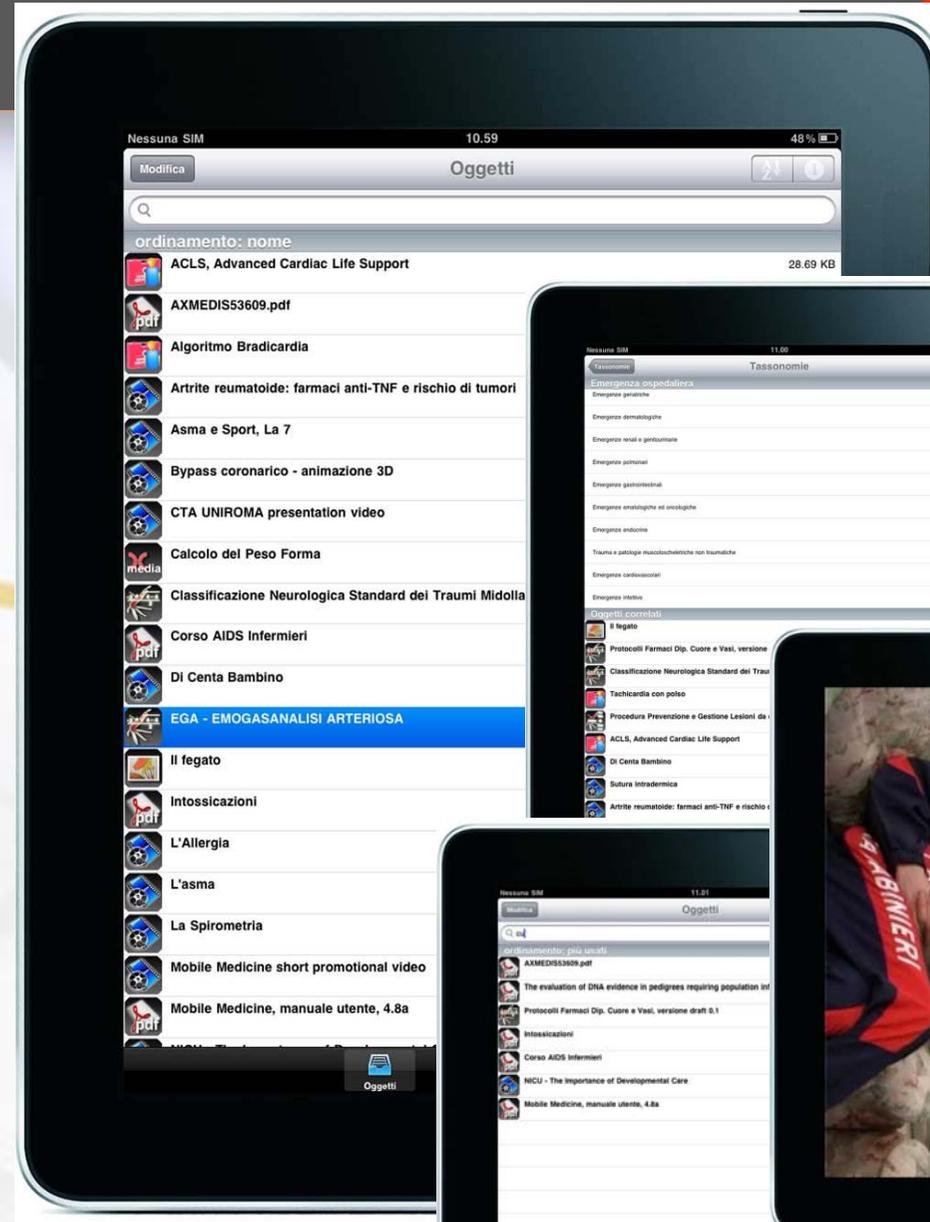
- Click to see the video about Audio Visual Annotation MyStoryPlayer presented at the opening event the 20 October 2011 with Dario Fo and Franca Rame, Rome:
  - <http://bpnet.eclap.eu/drupal/?q=home&axoid=urn:axmedis:00000:obj:d1910096-ed41-44b4-af8a-f57545526702>

# Content Organizer on mobiles

## Local:

- Content collection
- Search/query
- Navigations.. taxonomy
- Suggestions
- ...
- Video of the Content Organizer:

■ <http://bpnet.eclap.eu/drupal/?q=en-US/home&axoid=urn:axmedis:00000:obj:ea5eb861-18b6-4262-8d4b-77b3d3c084f0>



# ECLAP content kinds

## ■ General

- blog, web pages, events, help, forum, wiki, etc..

## ■ Content

- audio, video, images, doc, animations, ebook/epub, mpeg-21, smil, html, doc, docx, ppt, pptx, zip, web pages, etc..

## ■ Aggregations

- Collections, playlists, courses, annotations

## ■ Enrichment

- Tags, taxonomy, comments, translations

## ■ Networking Group

- users, groups, friendships, behavior
- discussions: forum, comments, blog, ...
- groups and users' web pages

## ■ Workflow

comments

rating

relationships

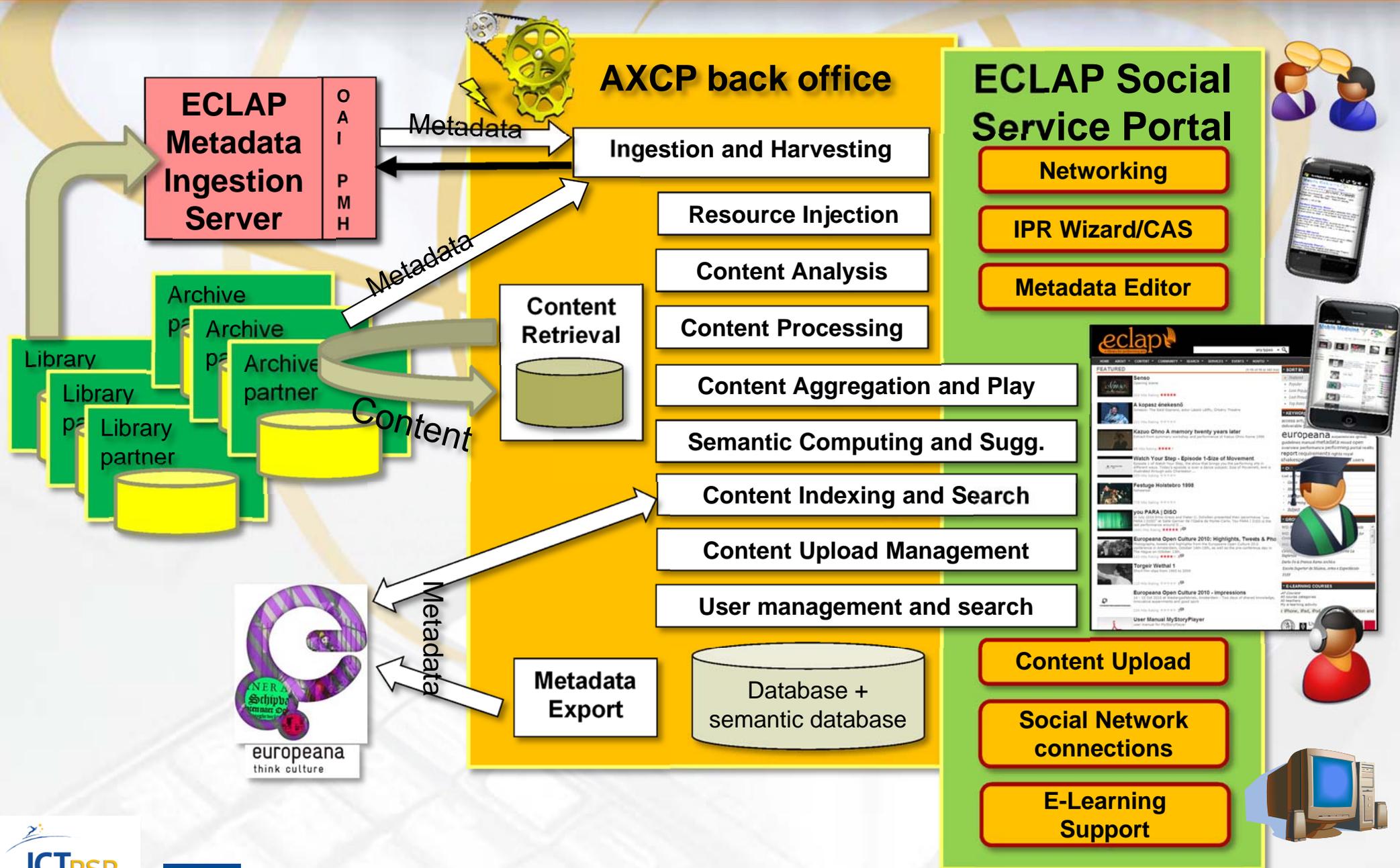
technical

Dynamic

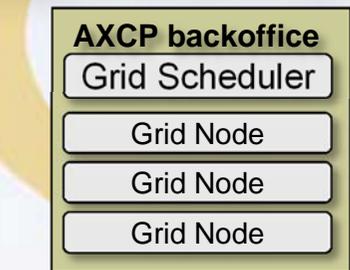
recommend

.....

# Architecture and Back-office



# Semantic Flows



- Rule based system
- Automated formatting
  - Inferential engine processing
  - Adaptation
  - enrichment
- Multilingual index and search
  - Text Analysers
  - Indexer
  - Fuzzy search

- Suggestions
  - Similarity distances
  - Clustering

**AXCP BackOffice**

- User Profile
- Dynamic User Profile
  - User behavior
  - Use data
- Content
  - DC+IDs
  - AXInfo: ver, prod., rights,..
  - Descriptors
- Groups: users, content..
- Ontology/Taxonomy Domain

- Suggestions on the basis of:
  - Static and dynamic user profile, descriptors, domain

**Front End Portal**

- Local User Profile
- Local Dynamic User Profile
  - Local User behavior
  - Local Use data
- Content
  - DC+IDs
  - AXInfo: ver, prod, rights, ....
  - Descriptors
- Groups
- Taxonomy classification

- Local Suggestions on the basis of user profiles, local content, local collected data

**Content Organizer and Players**

*contributions, actions on content, social actions, preferences, queries, use data,..*

**Users**

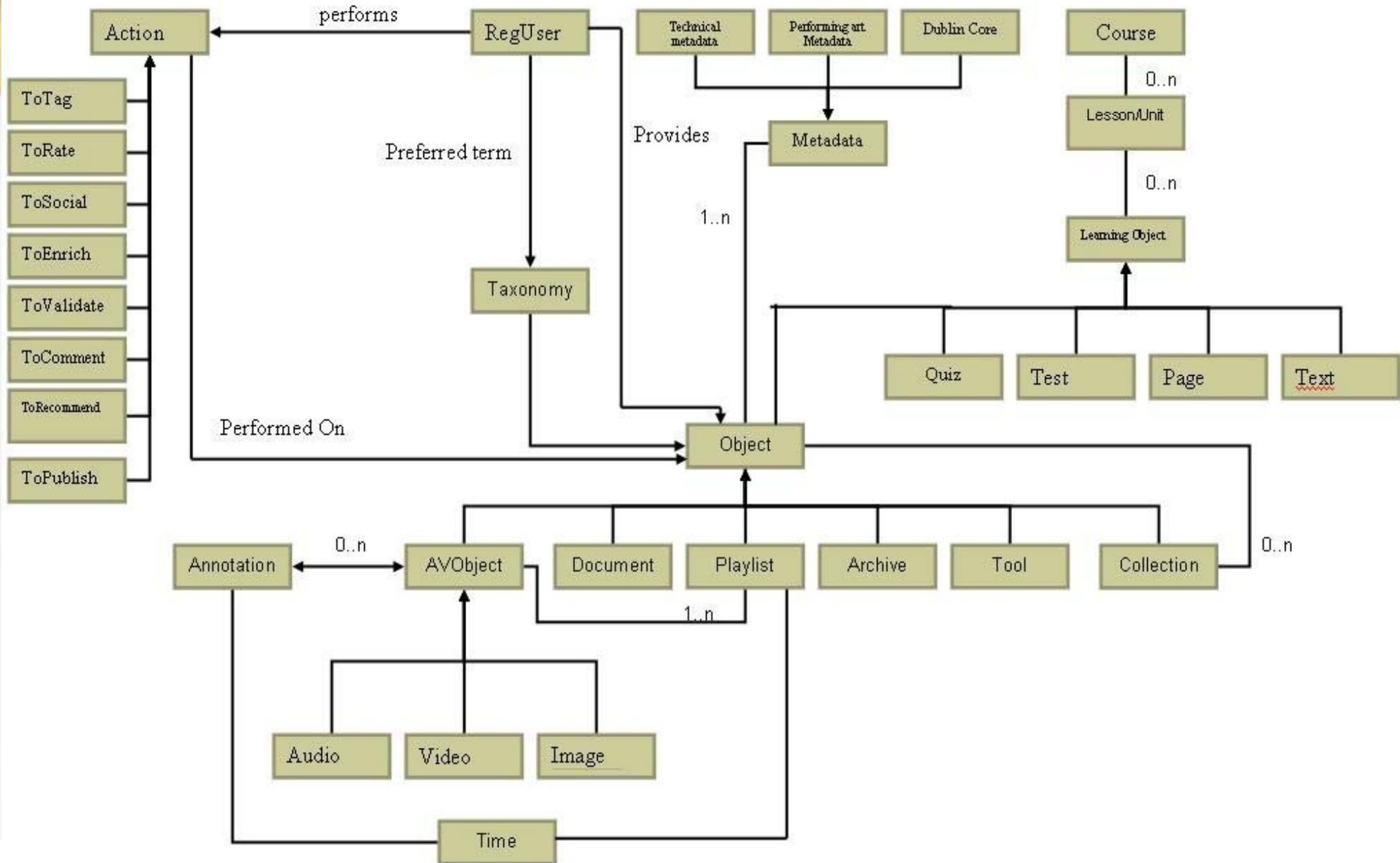


- **Multiple heterogeneous kind**
- **Semantic Model for content:**
  - Multilingual Metadata: General, Classification, Technical, Performing Arts, Workflow
  - Aggregations: playlists, collections, courses, ..
  - Enrichments: comments, annotations, tags, ..
- **User Modeling, user behavior analysis and profiling**
  - Integration of static and dynamic profiling: *action, friendships, featured, preferred, collections, commented, votes, etc. etc.*
- **Semantic reasoning:**
  - Exploiting semantic model of content and user profiling for analyzing and producing suggestions:  $U \rightarrow U$ ,  $O \rightarrow U$ ,  $O \rightarrow O$ , etc.
- **Automated and scalable back office, content processing**
  - Content file ingestion, repurposing for any device, managing media and cross media content: any content/format kind, >500 file formats
  - Executing semantic computing algorithms (see IEEE Multimedia)

# ECLAP Metadata Mapping

	<b>ECLAP semantic model</b>	<b>Europeana ESE</b>	<b>Europeana EDM</b>
<b>Dublin Core</b>	100% (and multilingual)	100%	100% (multilingual)
<b>Performing art metadata</b>	>59 additional fields	0	<i>Work by DSI is in progress for the mapping</i>
<b>Technical metadata of different kind</b>	>25 technical information	0	<i>Work by DSI is in progress for the mapping</i>
<b>Aggregation information</b>	About 4 (playlists, collection, sync, courses, etc.)	0	<i>Work by DSI is in progress for the mapping</i>
<b>workflow</b>	Different workflows	0	--
<b>Right and licensing</b>	Europeana.rights and use licensing, license url, etc.	Only Europeana.rights element	<i>Work by DSI is in progress for the mapping</i>
total	Much more with respect to ESE	Mapping at 100%	To be assessed

# Semantic Model (a part)





- **General frontal search**
  - Large range of content kind, any language, etc.
  - Possible activation of the deep search
  - Results: faceted and sorted
- **Specific / Advanced search capabilities**
  - per language, per provider, etc.
  - And/Or composition of a large range of metadata
  - MyStoryPlayer: Annotations and Experiences
  - Filtering content per workflow metadata
  - Groups Search
  - User Search
  - Search and browse on Mobile

## ■ Offered Browsing List

- **General Lists:** most accessed, last uploaded, highly rated, featured, ...

- **Your Lists:** your content, content of your friends, your playlists, your collections, your preferred, suggested objects, your featured, .....

- Your groups, your friends, etc...

## ■ Browsing via

- Taxonomy/SKOS

- Groups and channels

## ■ Subscriptions profiled:

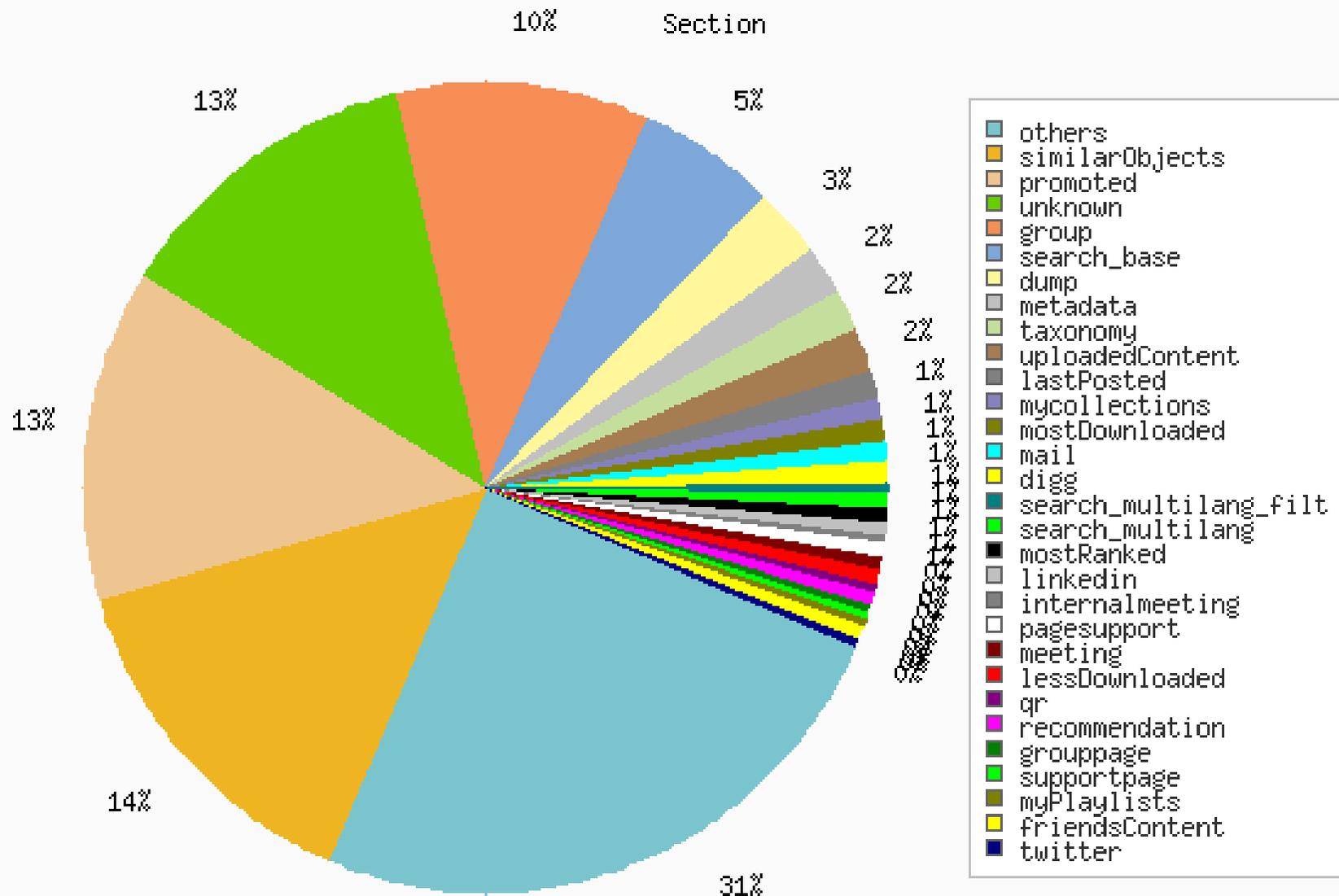
- Newsletters, notifications

# Assessment and validation

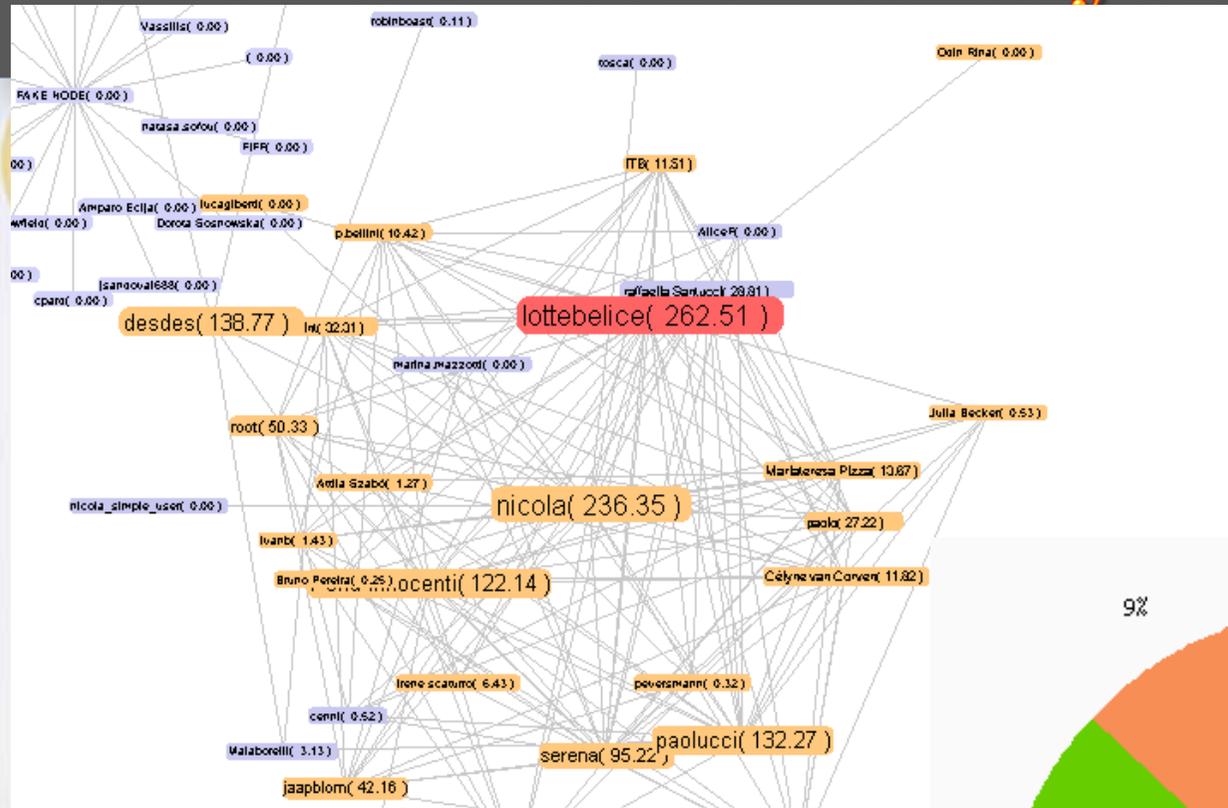
- Logs accesses: downloads and play
- Logs queries and appreciation
- Logs user actions, browsing, ...
- Contextualized Pop Up questionnaire to collect user view
- Specific assessment and validation sessions with set of users
- Access to all above details at the administrator level
  
- Access to statistical analysis for Group Coordinator:
  - Content Upload and Access
  - Content Enrichment
  - Social promotion, Networking
- Access to statistical analysis for regular registered user
  - Content Upload and Access
  - Content Enrichment
  - Social promotion, Networking

# Example: last month statistics on accesses

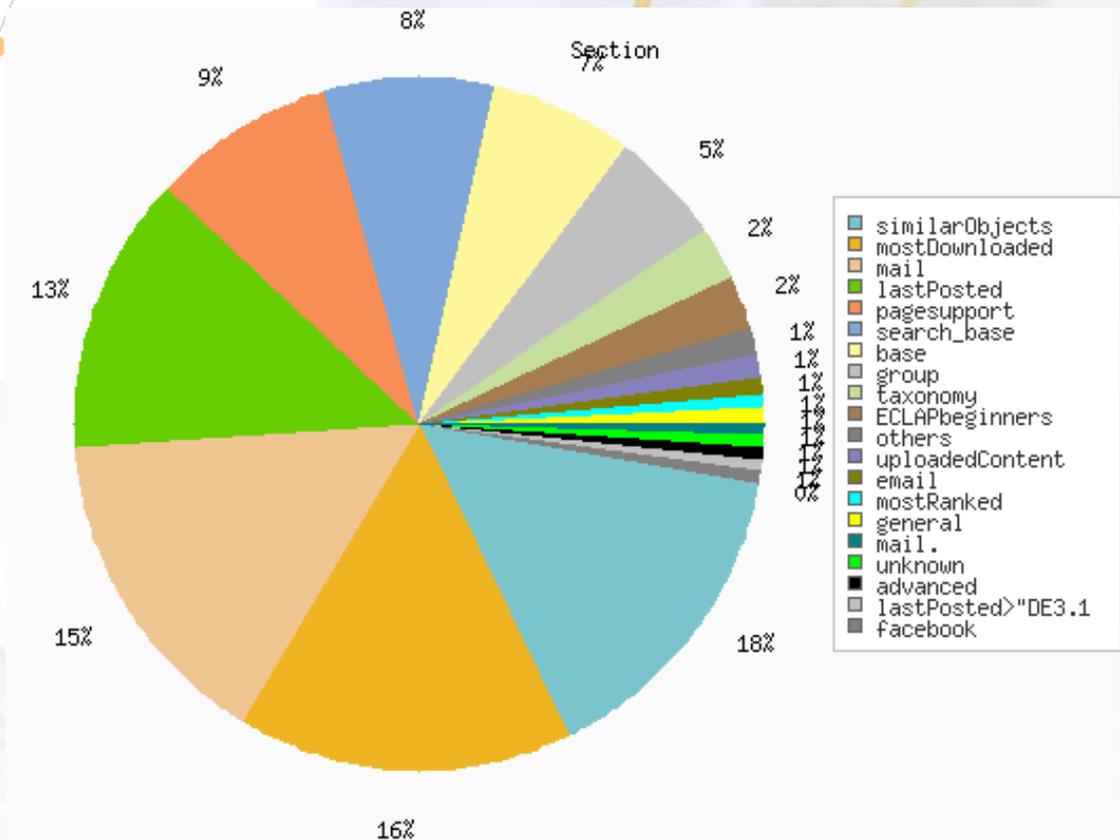
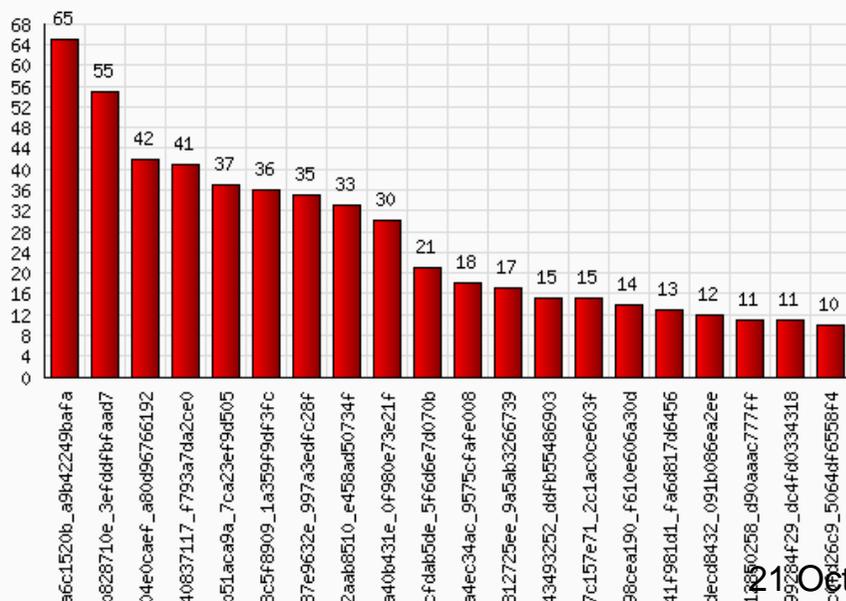
Distribution of Content Access per Section (downloads)



# User behavior analysis



- User profile analysis
- Users' actions
- Users' paths
- Reactions wrt query results



# ECLAP Coordinator

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