



# EUROPEAN COLLECTED LIBRARY OF ARTISTIC PERFORMANCE

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## DE2.1.1

## User Requirements and Use Cases

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## 1 Executive Summary

The aim of the ECLAP project is to create a considerable online archive and portal for all the performing arts in Europe, which will also become searchable in Europeana. ECLAP is creating a best practice network, and is going to develop best practise guidelines covering key areas of making digitised performing arts accessible, such as metadata and content modelling, content enrichment, IPR issues and management, and tools for education and leisure use. This will result in cultural enrichment and promotion of European culture, and in improvements in learning and research in the field of performing arts. This deliverable described the first requirements and use cases that are needed in order to set up the ECLAP Social Service portal, which will provide access to a wide range of performing arts contents and various tools and services for the ECLAP target users. Furthermore, the goal of this deliverable is to provide input which can be used to develop the functional specifications of the ECLAP portal.

### 1.1 Methodology

The user requirements and use case analysis in this deliverable is based on the experience of the ECLAP partners and on desk research. A survey was held among ECLAP partners and various partner users in order to determine the most important requirements and use cases. Requirements documents of other cultural heritage projects were studied, and a framework for formally describing the requirements and use cases was based on these documents, and on accepted theory in the field. Furthermore, interviews were held with experts (in this case Italian performing arts professors at various universities) in order to corroborate and refine the findings made thus far, since target users from the education and research category represent an important user base for the ECLAP portal. Case studies of existing (performing arts) portals were identified and analysed. Finally, a requirements meeting was held in Rome with various ECLAP partners (B&G, DSI, FRD, NTUA, UNIROMA, UVA) in which the draft of this deliverable was discussed, and input was gathered for refining and expanding the use cases and user requirements. The methodology employed for this first deliverable is geared towards developing the first high-level use cases and user requirements that are of interest to a critical mass of target users. Specific requirements for the various ECLAP target users will be continuously developed, finally resulting in a revised user requirements and use cases deliverable in project month 18.

### 1.2 Target users

In order to be able develop further develop specific requirements and use cases, various target users have been identified. The ECLAP partners have provided input on the preliminary set-up of target users in the Description of Work via the survey. Three macro categories are now identified, namely Education and Research, Leisure and Tourism and Cultural Heritage Professionals. Within these three main categories, various target user groups are specified, and the level of education, computer literacy skills and their needs and goals are described. These specifications form the basis for further requirements and use case development, and various user groups will be set up which consist of experts that represent the different users of ECLAP. These user groups will later on test and validate the results produced by the ECLAP project.

### 1.3 Use cases and user requirements

Based on the methodology and goals and needs of various target users high-level use cases and requirements are identified, and the priority levels are indicated by the consortium members. The main results are:

- Browsing and searching on the ECLAP portal should support faceted search.
- Users want to search for digital objects through free text search terms, browsing through the ECLAP taxonomy, and by using metadata that are a result of user-generated enrichment.
- Users want to perform multilingual search queries and to see the ECLAP portal in their own language.
- Users want to enrich digital objects with comments, rating, annotations, references and tags.
- Users want to see related items when viewing a digital object.

- Users want to share the digital objects on the ECLAP portal with others (this is only possible if IPR permits this).
- Some users want to license materials on the ECLAP portal.
- Users want to compile playlists of digital objects, which can contain both whole and segment of digital objects.
- Users want to upload their own digital objects to the ECLAP portal.
- Users want to download digital objects from the ECLAP portal (this is only possible if IPR permits this).
- Users want to come into contact with other ECLAP users that share the same interests through groups.
- Users want to access the ECLAP portal and its services via mobile devices.
- Users are interested in all types of digital object (video, text, audio, image).
- Users are interested in a multitude of performing arts topics.
- Content providers want to (batch) upload and manage digital object types and metadata in the back-end of the ECLAP portal.
- Content providers want to edit and validate the automatic translations of metadata in the back-end of the ECLAP portal.
- Content providers want to manage the ECLAP taxonomy in the back-end of the ECLAP portal.

These requirements match with the aims of the ECLAP project set forth in the Description of Work.

## 2 Introduction

The following acronyms are used in this deliverable:

Acronym name	Explanation
DE (Deliverable)	The acronym DE stands for deliverables, the reports and objects that will be produced during the ECLAP project.
M (Project month)	The ECLAP project started in July 2010 (M1) and will finish in June 2013 (M30). In this deliverable, the project months are specified in which certain tasks and deliverables will be completed. For instance, if a deliverable is due in December 2011, this is M18 of the ECLAP project.
Partner name	The ECLAP consortium now consists of 19 partners (although the network will be expanded). Every partner has its own acronym, for instance DSI for the project coordinator of the Department of Systems and Informatics at the University of Florence. A complete list of the partner acronyms can be found in the introduction below
WP (Work package)	ECLAP consists of seven Work packages, in which the various partners carry out specific tasks. A complete overview of all WP's can be found in section 2.3 Relation to other Work Packages.

### 2.1 The ECLAP project

The aim of the ECLAP (European Collected Library of Artistic Performance) project is to create a considerable online archive for all the performing arts in Europe, which will also become searchable in Europeana. ECLAP is creating a best practice network, and is going to develop best practise guidelines covering key areas of making digitised performing arts accessible, such as metadata and content modelling, mapping of metadata standards, semantic enrichment, IPR issues and management, business models, ingestion and integration of end-user contributions, education and leisure tools, and digital libraries tools. This will result in cultural enrichment and promotion of European culture, and in improvements in learning and research in the field of performing arts.



ECLAP is going to build a best practice network of important European performing arts institutions and archives. Right now, the ECLAP consortium consists of the following 19 organisations:

- DSI, Department of Systems and Informatics, University of Florence, Italy, (coordinator)
- AXMEDIATECH, Axmediatech Srl, Italy
- Beeld en Geluid, (Sound & Vision), Netherlands Institute for Sound and Vision, The Netherlands
- CTFR, Dario Fo & Franca Rame Archive, Italy
- ESMAE-IPP, Escola Superior de Música e das Artes do Espectáculo do Porto, Portugal
- FIFF, Festival International de Films de Femmes de Créteil, France
- FRD, Fondazione Rinascimento Digitale, Italy
- IKP, The Institute of Polish Culture University of Warsaw, Poland
- ITB, Museu de les Arts Escèniques Institut del Teatre de Barcelona, Spain
- BELLONE, La Bellone, House of Performing Arts, Belgium
- MUZEUM, Ljubljana, Slovenia
- NTUA, National Technical University, of Athens, Greece
- ODIN Theatret, Nordisk Teaterlaboratorium, Denmark
- OSZMI, Hungarian Theatre Institute, Hungary
- UCAM, Museum of Archaeology & Anthropology, University of Cambridge, UK
- UCLM, Universidad de Castilla La Mancha, Spain
- UG, History of Art Department at the University of Glasgow, UK
- UNIROMA, Centro Teatro Ateneo, Department of Performing Arts, University of Rome La Sapienza, Italy
- UVA, Department of Theatre Studies, University of Amsterdam, The Netherlands

ECLAP started in July 2010 (M1), and will finish in June 2013 (M30). During the project, the number of partners will be increased through various networking activities, such as organising workshops and conferences, actively fostering networking and strengthening links among the performing arts institutions throughout Europe and at an international level.

## 2.2 Scope and aim of this deliverable

The scope and aim of this deliverable is two-fold, since it deals with the requirements for:

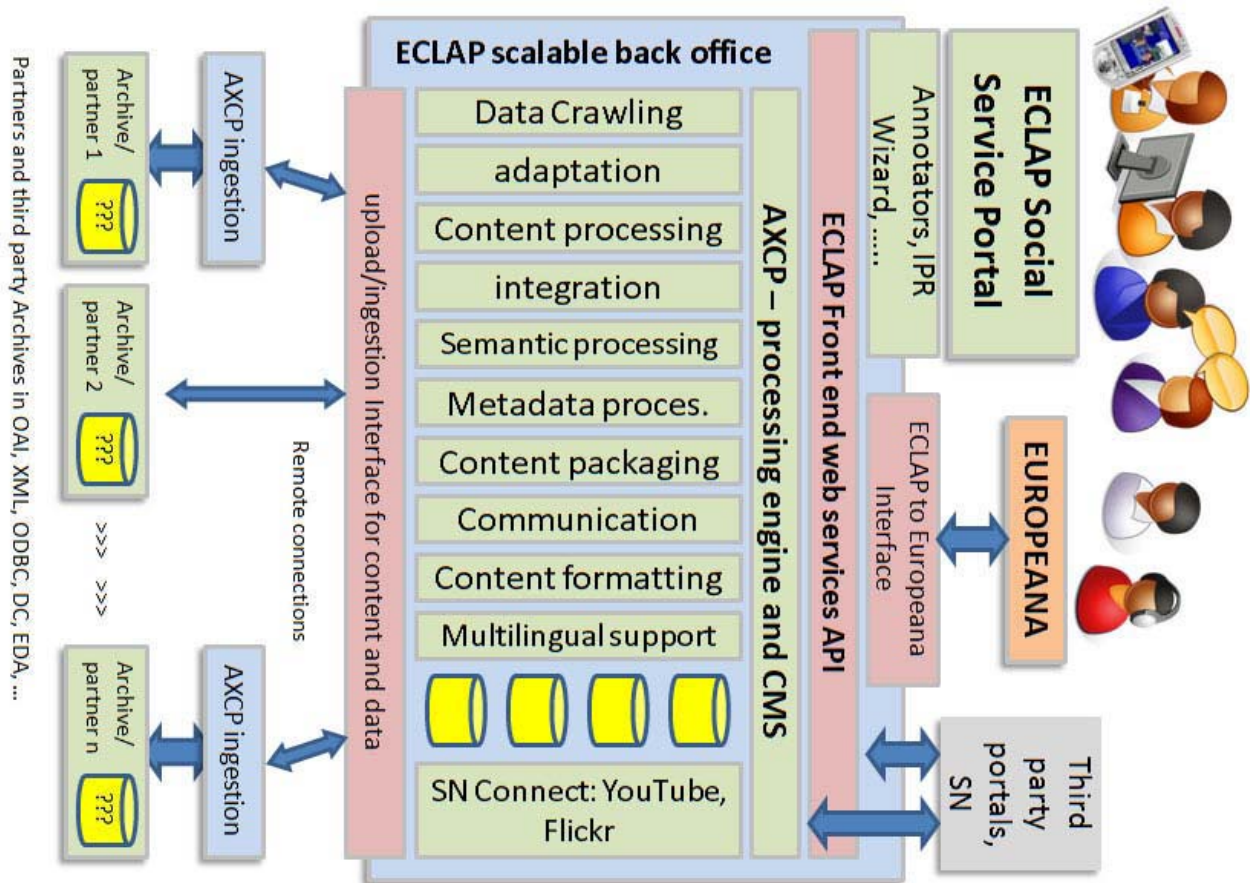
- An insight in the requirements of the back-end of the ECLAP portal, where content partners can add and manage materials, and to prepare them for ingestion in Europeana.
- The front-end of the ECLAP portal that can be used by various end target users to browse, search, view and interact with the materials. This is where the main focus of this deliverable lies. There is already an extensive scalable back-end (AXMEDIS<sup>1</sup>) which has been developed by technical partner and project coordinator DSI in the past. The front end of ECLAP, the ECLAP Social Service Portal is going to be the main tool and front end for the various ECLAP target groups to make use of, enrich and work on content. Although an early version of the ECLAP portal is available as a demo<sup>2</sup>, it needs to be intensively supplemented and enhanced.

The ECLAP architecture looks as follows:

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<sup>1</sup> <http://www.axmedis.org/>

<sup>2</sup> <http://bpnet.eclap.eu/>



**Figure 1: Overview of ECLAP Architecture, as planned in the Description of Work.**

In the Description of Work (p. 89-92), an early list of requirements were specified which should be available on the ECLAP Social Service portal. These and other possible relevant requirements were incorporated in a survey, and various user groups (see section 4 Description of the target users) have been asked what they deem to be the most important requirements, since the aim of this deliverable is to identify the most important use cases and user requirements. Furthermore, interviews with experts were held, literature studies were performed and case studies were collected to gain more insight in relevant use cases and requirements. Therefore, the user requirements and use cases presented in this deliverable are not fine-grained at this early stage of the ECLAP project. They serve as a basis on which the first version of the ECLAP Social Service portal can be developed, starting from the early demo version. However, the ECLAP partners have all contributed to this deliverable, and various target users have been approached, and thus insight has been gained into the most important requirements and use cases for the most important user groups. The use cases and user requirements will be continuously updated through the activities of WP2, most notably when the revised deliverable on use cases and user requirements will be finished in M18.

Outside of the aim and scope of this deliverable are:

- A fine-grained analysis of very complex requirements, especially those related to multilinguality, the ECLAP metadata schema and the ECLAP vocabulary. The requirements in this deliverable serve as the first, important input for these issues, which will be further developed in other WP's and at its revision at M18.

- A large quantitative gathering of requirements. Extensive surveys and interviews with various target users will be held further along on in the project, when the working groups<sup>3</sup> and user groups have been set up, and for the development of DE2.1.2 Revised User Requirements and Use Cases, which is due in M18.
- Functional specifications of how the system will work; these will be further developed in WP3: ECLAP Infrastructure and Interoperability.

### 2.3 Relation to other Work Packages

The requirements are continuously collected throughout the project duration, while being formalized into two documents: this deliverable in M3, and one mid-project in M18. Throughout the duration, revisions and specifications will be carried out in WP2. The first specification phase will be performed from M2 to M5 in the specific tasks where needed, most importantly in WP3 and WP4.

After the first phase from M1-M3 in which mostly WP2 has been working on collecting requirements, the activities related to the setup of the ECLAP Social Service Portal are going to start in parallel in project month 4. These are:

- WP3: ECLAP Infrastructure and Interoperability
- WP4: Content Provision and Augmentation
- WP5: Networking Activities

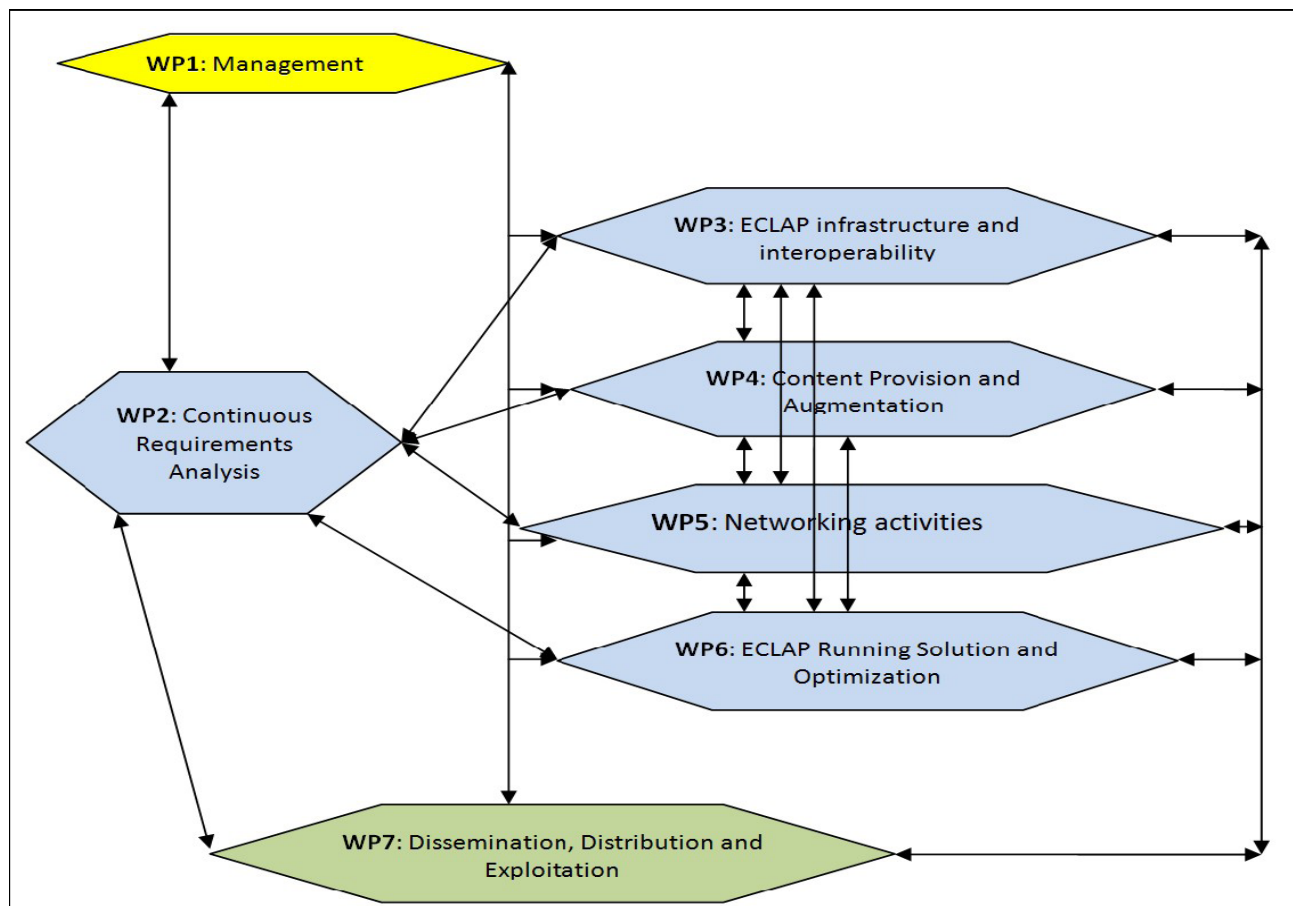


Figure 2: Diagram of WP structure

<sup>3</sup> The working groups are going to be set up in WP5: Networking Activities and will focus on developing best practices for applications for content for theatrical education and training, intellectual property and business models for content, and best practices tools for digital libraries and education for performing arts. User groups will be set up in WP2: Continuous requirements and scenarios analysis. These user groups will consist of expert representing different ECLAP users, and they will test and validate the results produced by ECLAP.

The activities of Networking will create content and information to increase quality for performing arts content posted on Europeana. On the other hand, the technical activities will be directly towards the set up and maintenance of the ECLAP portal in order to provide services to the networking partners such as providing content, making enrichment, adding comments, and contextualization. In M8, WP6: ECLAP Running Solution and Optimization will start with activities such as validation, management of IPR, analysis of educational content and requirements, etc. This includes a pre-validation of the solution with a restricted number of users. The activity of validation has been planned to start quite early to reinforce collecting specific requirements from the trials, apart from those already collected during the early phases. This task will be performed in parallel with the activities of content selection, enrichment and networking to continuously improve the results and services according to the real needs of the various ECLAP users groups.

## **2.4 Outline of the deliverable**

This deliverable is organised as follows: in the next section the methodology is described that was used in order to write the use cases and user requirements, and how they were collected and analysed. The target users of ECLAP are described in section 4. Section 5 is dedicated to the detailed description of the use cases, and section 6 contains the structured list of the user requirements. The future work and roadmap for the further development for use cases and user requirements is discussed in section 7. A glossary of the most important terms used in this deliverable can be found in section 9. There are several annexes to this deliverable: Annex I contains an overview of the surveys held among ECLAP content partners and various target user groups, and the survey results. Annex II provides insight in the expert interviews that were held, and in Annex III six relevant case studies are described.

## **3 Methodology**

There are various, supplementary ways in which the use cases and user requirements have been determined: by doing desk research, holding surveys among content partners and target users, performing interviews with experts, and holding a requirements meeting with various content partners and technical partners. Furthermore, templates were developed that allowed us to structure the description of the use cases and the user requirements. Later on, in the second developmental cycle of the ECLAP portal, focus groups and usability tests will be held with the various target groups, and more detailed and refined surveys will be held.

### **3.1 Use cases and user requirements**

The use case and user requirements templates were developed first, in order to have a framework that all the partners could work with. Also, it had to be established how we would implement and define non-functional requirements and digital object requirements.

#### **3.1.1 Use cases**

In order to gather and describe the use cases for ECLAP, research was done on the best methodology for describing them. It turned out that there is not a set standard for doing so, but there are some basic rules that all use case descriptions should adhere to. The most important things that a use case should capture are “who (actor) does what (interaction) with the system, for what purpose (goal), without dealing with system internals.” (Malan & Bredemeyer 1999, p. 1-2) So, use cases are not intended to already go deeply into the technical aspects of the system that is to be designed, but they define the steps that users should be able to take. From this, the functional and non-functional requirements can be extracted. The steps that are described in a use case are called the basic flow of events or a scenario. This is “an instance of a use case, and represents a single path through the use case.” (Malan & Bredemeyer 1999, p. 2) Even though this is not a prerequisite for writing a use case, alternative flows have been incorporated in the use case template as well. These alternative flows indicate what happens when an actor does not follow the basic flow of events.

The use case template that will be used in this deliverable is an amalgamation of various use case examples that were found during the research phase most importantly from:

- Heumann, J., June 2001. “Generating Test Cases From Use Cases. The Rational Edge: The e-zine for the Rational community”. Available at:  
<http://www.ibm.com/developerworks/rational/library/content/RationalEdge/jun01/GeneratingTestCasesFromUseCasesJune01.pdf>.
- Malan, R. & Bredemeyer, D., 2001. “Functional Requirements and Use Cases”. Available at:  
[http://www.bredemeyer.com/pdf\\_files/functreq.pdf](http://www.bredemeyer.com/pdf_files/functreq.pdf).

The use case template is structured as follows:

<b>Number + name</b> <the use case number + a short statement which indicates the core goal of the use case>
<b>Goal</b> <brief description of what the user’s goal is with this specific use case>
<b>Actor(s)</b> <overview of which of the target user(s) will execute the use case>
<b>Short description</b> <a summary of the flow of events, which describes the essentials of the use case>
<b>Preconditions</b> <definition of the conditions which have to be present for the use case to fully executed>
<b>Basic flow of events / scenarios</b> <the numbered steps which make up the entire use case from beginning to end>
<b>Alternative flow</b> <when a use case cannot be executed as described in the basic flow of events, the alternative flow describes which alternative steps will be taken by the actor>
<b>Postconditions</b> <description of the changes that will have occurred in the system when the use case is fully completed>
<b>Priority</b> <indication of the importance of the specific use case (high / medium / low)>
<b>Relationships with other use cases</b> <if applicable, here it is noted to which use case(s) the use case is related>
<b>Remarks</b> <issues that need to be taken account when developing the use case>

**Table 1: Use case template**

### 3.1.2 User requirements (UNIROMA/B&G) MAIA

ECLAP is going to offer a large variety of user requirements. These requirements have been “written from the user point of view [and] describe any function, constraint, or other property that must be provided to satisfy the user needs.” (Kujala, Kauppinen & Rekola, 2001). In this case, the requirements will (or have already been) applied to the early demo version of the ECLAP portal mentioned in the introduction of this document, and which have been described in the ECLAP user manual<sup>4</sup>.

The core of our methodology discussion started from acknowledging that items uploaded to the ECLAP portal by 17 content providers (the ECLAP content partners) will be of a very different kind, as each content partner is operating in different Performing Arts sectors (theatre, music, dance, film, etc.) and their archives possess different documents.

Research and bibliography related to these complicated issues is still lacking and we needed to exchange the maximum of ideas and performed quite a number of tests in order to achieve new requirements that are

<sup>4</sup> [http://bpnet.eclap.eu/help/eclap\\_bpnet\\_user\\_manual\\_v1-0.htm?AnoverviewonECLAPBPNET.html](http://bpnet.eclap.eu/help/eclap_bpnet_user_manual_v1-0.htm?AnoverviewonECLAPBPNET.html)

specific to our specific multiple content. During this early test of the ECLAP BPNET demo portal by the ECLAP partners, the portal has been stressed with more than 900 downloads and plays, the registration of 60 users, the creation of comments, the creation of 20 user groups, the usage of forums, the automated sending of messages and invitations, the production of suggestions, etc.

One major issue (primarily discussed during the ECLAP requirements meeting) was to explore how Performing Arts target users groups, each related to the main macro-categories (see section 4 Description of the target users) show very different, but also overlapping user needs, thus giving birth to many different user requirements. We have identified the most high-level and relevant user requirements that suit the needs of multiple target users, and will thus satisfy a critical mass of users.

We underline how users of different target users could show many different levels of needs, giving space not only to different requirements but also to very different final configurations of the ECLAP architecture. Decisions have to be taken by the consortium to decide how to fulfil the requirements in order to be appealing for the maximum number of users' groups potentially interested to access the ECLAP portal.

In order to do so, in this deliverable, needs are listed, as detailed as possible, as actions that target users could perform to have a full possess and understanding of the various multimedia documents and metadata information that will be available on ECLAP portal.

Just like the use case template, the template for describing user requirements has been based on various examples and literature, most notably:

- Hesselmann, T. & Heine, D., 2009. *Catalogue of User Requirements*. Vienna: Austrian National Library. Available at: [http://www.europeanaconnect.eu/documents/D3.4.1\\_eConnect\\_Catalogue\\_of\\_User\\_Requirements\\_v1.0\\_20091222..pdf](http://www.europeanaconnect.eu/documents/D3.4.1_eConnect_Catalogue_of_User_Requirements_v1.0_20091222..pdf).
- Minelli, S. e.a., 1 May 2006. *D1.2 User Requirements Analysis*. Multimatch. Available at: <http://www.multimatch.org/docs/publicdels/D1.2Final.pdf>.

NR	User role	Type of requirement	Requirement	Explanation	Priority level
<unique number identifying the requirement>	<indication of which user role is allowed to execute the requirement> See section 5 Description of use cases>	<category to which the requirement belongs>	<short name of the requirement>	<description of the requirement>	<priority level of the requirement at this stage of development according to the ECLAP consortium members>

**Table 2: User requirements template**

After a first phase of identification of the target users and their requirements, user requirements will be translated to functional requirements. Functional requirements “describe what the software shall do in terms of tasks and services” (Bundschuh and Dekker, 2008) and “capture the intended behaviour of the system”. (Montero and Navarro, 2009, p. 230). So, the user requirements are the basis for the technical partners to develop the ECLAP Social Service Portal and services in general.

### 3.1.3 Non-functional requirements

A non-functional requirement is a statement of how a system must behave, it is a constraint upon the system's behavior. It specifies all the remaining requirements not covered by the user and functional requirements. They specify criteria that judge the operation of a system, rather than specific behaviors. Non-functional requirements specify the system's 'quality characteristics' or 'quality attributes' (OGC, 2000)



### 3.1.4 Digital object requirements

Furthermore, users have requirements of the content itself that is to be placed on the ECLAP portal. These requirements are not functional, since they do not concern the behaviour of the system itself, but they are directly linked to the user needs and expectations regarding the digital objects. The requirements for the digital objects in ECLAP can be split up in three categories:

#### 3.1.4.1 Digital object type

This relates to user requirements for specific types of digital object: video, image, text, sound, the four object types currently handled by Europeana (Europeana Aggregators' Handbook, May 2010, p. 15). Some target users may want be more interested in videos, while others are looking for texts or images.

#### 3.1.4.2 Content

Content relates generically to the range of material made available via ECLAP. More specifically, content refers to the information contained in the digital object itself, or in other words, the contents of the data stream in the digital object that people can watch, see, listen to, and read. User requirements for content, depending on the nature of the specific user community, may be defined, for example, by genre, historical period or theme.

#### 3.1.4.3 Metadata requirements

This requirement entails all the information that end users need to find digital objects, such as taxonomies and content descriptions.

## 3.2 Establishing use cases and user requirements

Various methods were used in order to establish the most important use cases and user requirements. These methods are described in the following sub-sections. It should be noted that this being the this first use cases and user requirements deliverable we have used qualitative methodologies in order to write this first, more general deliverable containing the most important and high-level requirements that are of interest to multiple target users. We are already working on surveys and interview guides that will be distributed among large numbers of user groups, with which we can gather a more quantitative and truly representative sample of requirements of interest for various target users. This being said, we have gathered a great enough sample of surveys and interview responses (see Annex I – Survey results and Annex II – Interviews with experts) with which we could develop this first requirements deliverable.

### 3.2.1 Desk research

The desk research entailed:

- Studying performing arts and cultural heritage portals, and what they offer to their users (see Annex III – Case studies).
- Literature research on describing use cases and user requirement (see Bibliography ).
- Literature research on user needs of performing arts and cultural heritage portals (see Bibliography ).
- Analysing user requirements documents of related projects (see Bibliography ).
- Research on existing metadata standards, schemas and vocabularies (see section Digital object requirements – front-end).

The results of all these activities research were analysed and aggregated and served as important input for formalising and describing the target users, use cases and user requirements.

### **3.2.2 Survey**

Secondly, a survey (for the results, see Annex I – Survey results) was developed for ECLAP content partners which allowed them to indicate which content and functionalities they deem most important to incorporate in ECLAP. To make the survey, the online software Survey Monkey<sup>5</sup> was used. The questions of the survey were developed by B&G and NTUA. A draft of the survey was submitted on the ECLAP mailing list at the end of July. The feedback on the survey by the partners was incorporated in the first week of August, and the final version was then distributed. In the survey, partners were also asked to indicate which metadata standards and vocabularies they use for their collections. Finally, partners were asked to upload content to the current BPNET ECLAP demo portal and to give feedback on the process in the survey. The results of the survey were analysed mid-August, and the results were used to further extract relevant requirements and use cases based on the partners' input.

Since many people working for the content partners also represent other target users besides Content Partners (such as Researchers, Media Professionals, Students), their responses related to the importance of certain types of content and requirements could be related to multiple target users.

Furthermore, UNIROMA distributed an Italian requirements survey (see Annex I – Survey results) among Italian university students, university teachers, university researchers and primary school teachers. UNIROMA and MUZEUM also distributed an English-language version of the survey (see Annex I – Survey results) among various target users.

The aim of the requirements surveys distributed at this point of the project was to gather an overview of the basic requirements shared by various target users. Later on in the project, another survey will be distributed among many more target users in order to gather more fine-grained requirements for the next iteration, and which will result in quantitative data regarding the special requirements per target user group.

### **3.2.3 Requirements meeting**

Brainstorming meetings have been a fundamental collaborative method to quickly take decisions relevant for the all consortium members, especially in projects involving many different content and technical partners. Moreover, in order to achieve ECLAP final objectives, we have to maximize the experience of the experts in working in this project.

Therefore, on September 8 2010, a requirements meeting was held in Rome in various partners brainstormed about the deliverable in order to refine it and to gather more relevant requirements and use cases. The partners that were present are: B&G, DSI, FRD, NTUA, UNIROMA and UvA. During this day, the partners revised the document structure, the most important use case and identified the most important elements that were still missing, and that had to be changed at that moment. The results of that requirements meeting can be found in section Annex IV – Requirements meeting.

### **3.2.4 Interviews with experts**

One of the most important target users for the diffusion of ECLAP are those in the macro category Education and Research, especially universities. There are over two million Humanities and Arts students in the 27 European Union member states (EUROSTAT, p. 24). Therefore, some informal one-on-one interviews (see Annex II – Interviews with experts) were held by UNIROMA with seven performing arts professors from a variety of Italian universities in order to gather input on the use cases and requirements they would value the most highly for a portal such as ECLAP. The small group of experts will be expanded for the further development of the ECLAP portal, in order to gather more quantitative data from a greater variety of experts from multiple countries..

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<sup>5</sup> <http://www.surveymonkey.com/>



### 3.2.5 Case studies

Based on the responses to the survey, desk research and the responses of the interviewed experts, a list of the most relevant performing arts portals and portals containing cultural heritage were identified which served as case studies. The results of the survey and analysis of the case studies can be found in section **Errore. L'origine riferimento non è stata trovata.** Annex I -**Errore. L'origine riferimento non è stata trovata.** and section 12 Annex III – Case studies.

## 4 Description of the target users

The scope of this first overview of identified target user profiles is not to find out more about general users and their level of usage, interest in or awareness of performing arts online, but is already focused on specific target groups and their needs. We define our target users as: *“users that are already using performing arts digital contents for education and research, leisure and tourism, and for their activities in the cultural heritage sector”*.

This classification starts from the target users defined in the Description of Work (p. 52-54) that provided an early classification. These groups were listed in the survey (10.2 Questions on target user) and partners were asked for their feedback. Based on their responses and following the main scope outlined in the Description of Work the following three macro categories can be defined:

- a) **Education and Research**
- b) **Leisure and Tourism**
- c) **Cultural Heritage Professionals**

A survey conducted by European Commission (European Cultural Values, 2007) identifies some general trends about the use and impact of cultural heritage in Europe. These results are used in conjunction with the experience of the ECLAP partners, to define the most important sub-categories that the ECLAP project has to take into account. These sub-categories represent the needs and skill of specific target users.

### 4.1 Target users: Education and Research

The Education and Research category includes target users that study performing arts and / or use performing arts digital objects for education and research in performing arts or other domains such as the humanities or social sciences. The definition of this category is justified by the results from the European Cultural Values survey where “It is demonstrated that cultural and artistic participation is highest amongst those who have spent the longest period of time in education. The same is also true of cross-cultural contact: For all types of contact under consideration, we see that these are higher among those who studied until 20 at the very earliest and lower amongst those who left education at the age of 15.” (European Cultural Values, 2007, p.43)

According with this evaluation we identify university and high level schools students and teacher categories as key target users.

The Research category is joined with Education because the needs, scope and requirements are very similar, as is demonstrated in the tables in section 4.4.

### 4.2 Target users: Leisure and tourism

The Internet “plays a key role as a facilitator of cultural life, with 42% of all leisure-time users saying that they use the Internet to obtain information on cultural events and products. The Internet is thus very important in helping people to plan and prepare their cultural consumption” (European Cultural Values, 2007, p. 25). Furthermore, they are interested in sharing online content with others. In Europe, 41.7 million people regularly use social networking websites, and this number will increase to 107.4 million in 2012 (European Commission, 2010). Sharing content on websites and social networks such as Facebook and Twitter, and via e-mail is very common (Ostrow, 2010; Schonfeld 2010). For those performing arts lovers who spend their leisure time looking for performing arts content online, ECLAP can provide a broad range of materials. This group of performing arts lovers will be quite heterogeneous, and potentially represents a large part of the general public.

Moreover, the performing arts can be important for the tourism sector, which is constantly promoting (cultural) activities. To this end, the tourism professional, whose primary objective is to provide tourists with attractive leisure activities, can use contents available on ECLAP in order to cater to the needs of those tourists that are interested in performing arts.

### 4.3 Target users: Cultural heritage professionals

These target users are involved in the management and / or production of cultural heritage, such as performing arts practitioners, cultural content managers and media professionals. These actors are taken into account as sub-categories of this target group.

In fact most people consume culture via television or radio. “At the top, almost 8 in 10 (78%) say that they have, at some point over the 12 months before their interview, watched a cultural programme on television, or listened to such a broadcast over the radio.” (European Cultural Values, 2007, p.13) The demand of cultural products used on media such as TV or Radio suggests that the media professional is a key target user, and that it is important to provide tools and contents to media professional looking for re-usable content for media productions. It is clear that the media professional are actors that work within broadcasting, film production and multimedia industry.

The cultural content managers can work in institutions such as publishing houses, museums, and archives in which staff such as archivists, librarians, and digital preservation experts manage their content. The cultural content managers are in general in charge of managing the content and work on activities such as digital preservation policies, business activities, cataloguing, digitalization activities. To perform all these activities, cultural content managers require specific skills, tools and functionalities.

Furthermore, in this macro category, the Performing art practitioner is a sub-category which represents the following persons: actors, directors, producers, set designers, costume designers, make-up artists, technical managers, marketing managers, builders, seamsters, scenic artists, lighting designers, lighting operators, sound designers, sound ops, musicians, stage managers, print & web designers, and their assistants, etc.

### 4.4 Target user tables

The explanatory table below serves as an overview of the diverse levels of education and technological skills the various target users might have. These levels and skills influence their requirements, and thus need to be taken into account when developing the ECLAP portal.

<b>Explanatory table</b>	
<b>Level of formal education</b>	<p><b>Higher education:</b> (University, Master, PhD degrees, Academies, Colleges), ages 19 and up, usually up until age 29.</p> <p><b>Secondary education:</b> ages of these students generally lie between 10-19, although this can differ slightly per country.</p> <p><b>Primary education:</b> ages of these students generally lie between 5-9, although this can differ slightly per country.</p> <p>(Figures based on EACEA, 2009)</p>
Performing art <b>academic degree</b>	A degree of higher education in the field of performing arts. (music, theatre, dance, etc.)
<b>Level of technological skill</b> There are actions that users can perform on digital objects that are related to their computer literacy. More complex actions/activities like uploading digital objects or generating new	<p><b>Low:</b> Basic searching, hearing, watching</p> <p><b>Medium:</b> Experienced with tagging favourites contents, advanced searching, votes, leaving comments and suggestions, downloading and</p>

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<p>multimedia objects are based on a more complex interaction with technologies and require a higher level of capabilities. In this early classification three levels of technological skills have been identified, based on actions/activities that users are able to perform.</p>	<p>distributing on different personal devices, like mp3 player, for a new experience in a different place, uploading and sharing contents</p> <p><b>High:</b> Using ontology, creating new multimedia productions from various digital objects (editing), aggregating content.</p>
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The target user tables below contain an overview of the various target users per macro category, their profile (which contains information described in the explanatory table above), and a general overview of the goals that the various target user groups have or could have by using the ECLAP portal. The fourth column provides a general overview of the most important goals the target users are expected to have when using the ECLAP portal.

Target user Description	Role	Profile	Main goal and expectations of the target user
<b>Macro category: Education and Research</b>			
<b>Student/ Researcher of higher education</b> (focus on research / writing on performing arts)	Learner	<p>Medium/High level of technology skill (there can be exceptions, which actually goes for all profiles)</p> <p>High level of formal education</p> <p>Employed in public or private research institution, or attending a Bachelor, Master, PhD, academic courses.</p> <p>Generally technology enthusiastic and open towards new tools</p>	<p>This group uses performing art resources for analysis, comparisons, etc. based on their specific subject of study. This activity is mainly oriented towards academic publications. Researchers have a strong focus on the creation of collections, semantic relationships and content enrichment.</p> <p>These users want to join groups of similar users in the field of performing arts, establishing contacts with organizations, research centres, and associations with the same interests.</p> <p>To join cultural exchanges with other universities or institutions.</p>

<b>Teacher of higher education / university</b>	Educator	<p>Medium/ High level of technology skill</p> <p>High level of formal education</p> <p>Employed in Public or private research institutions</p> <p>Academic degree</p>	<p>These users want to access performing art resources for supplying educational materials, like a case study for a specific subject. Examples include the use of performing art contents in the study of history, semiotic, history of the art, science of communication, etc. To this end they want to aggregate contents coming from several different institutions in a training course and want to be able to present it in a custom layout in their classroom environment.</p>
<b>Performing arts student</b> (focus on practice / becoming performing artist)	Learner	<p>Low/medium/high technology skill</p> <p>Medium/High level education</p> <p>Attending courses at a performing arts academy</p>	<p>These users want to access resources for studying techniques, expressions, actions, etc. of a performance itself.</p> <p>They need also to make comparisons between different performances of the same subject.</p>
<b>Performing arts teacher</b>	Educator	<p>Low/Medium/High level of technology skill</p> <p>High level of formal education</p> <p>Academic degree</p> <p>Employed in a performing arts academy</p>	<p>These users want access to performing art resources for demonstrating, teaching, producing examples during lessons.</p>
<b>Primary school teacher</b>	Educator	<p>Low/Medium level of technology skill</p> <p>High level of formal education</p> <p>Employed in Public or private education institution</p>	<p>These users want access to performing art resources mainly for entertaining young scholars.</p>
<b>Secondary school teacher</b>	Educator	<p>Low/Medium level of technology skill</p> <p>High level of formal education</p> <p>Employed in public or private educational institution</p>	<p>This user wants access to performing art resources mainly as a supply educational material in particular in relation to humanities subjects. Contextual information is crucial for multi-disciplinary overview on historical period or philosophy or literature movement.</p>
<b>Community centres (related to social activities like: Neurology, Psychology)</b>	Educator	<p>Low/Medium/high level of technology skill</p> <p>High level of formal</p>	<p>This user wants access performing arts resources mainly to supplement educational material in particular in relation to social, expressive and</p>

and psychiatry, anthropology, ethnology, sport, etc)		education  Employed in Public or private research institutions	cultural aspects of human been. The semantic relationship among contents, the contextual information and community oriented tagging are crucial for multi-disciplinary overview and exploitation.
<b>Target user Description</b>	<b>Role</b>	<b>Profile</b>	<b>Main goal and expectations of the target user</b>
<b>Macro category: Leisure and Tourism</b>			
<b>Leisure user</b>	Consumer	Low/Medium level of technology skill  Various levels of education	This user is a performing arts lover who want to discover and access performing art resources in order to listen, watch, make playlists, tag, and share according to his interests in his own free time.  This user want to join to groups and thematic social networks for exchanging experiences, comments, evaluation, news, etc.  They want to upload content that can present a different point of view of a performance.
<b>Tourism operator</b>	Producer	Users that use performing art digital contents for promotion and information directed towards tourists.  Low/Medium level of technology skills.  Works in tourism industry.  Business oriented.	These users want to obtain information and resources of past events, manifestations or concerts related to current performing arts activities held in their area, which they can offer to visiting tourists as a service.
<b>Target user Description</b>	<b>Role</b>	<b>Profile</b>	<b>Main goal and expectations of the target user</b>
<b>Macro category: Cultural Heritage Professionals</b>			
<b>Performing arts practitioner</b>	Creator	Users that are involved in performing arts production with different roles.  Medium/high level of technology skills	These users want to access collaborative performing art resources
<b>Cultural content</b>	Manager	Medium/ High level of	These users work in cultural

<b>manager</b>		<p>technology skill.</p> <p>Medium/High level of education.</p> <p>Employed in public or private cultural institutions such as museums, libraries, and archives.</p> <p>Specific competences in cataloguing, digital preservation, repository technologies, digitization.</p> <p>Business oriented.</p>	<p>heritage institutions that own, archive, catalogue, curate and in general manage cultural heritage and performing arts materials. They want to access an integrated system that supports all stages of content production, content preservation and storing, content distribution, all the while maintaining the control on the process.</p> <p>All cultural content managers that deal with performing arts collections are potential ECLAP content providers, since they might want to share their collections as well. Thus, content providers are an important sub-group of cultural content providers.</p>
<b>Media professional</b>	Producer	<p>Users that work also with performing art digital contents for multimedia productions.</p> <p>High level of technology skills</p> <p>Works in content production industry like television broadcasting, cinema, radio, news agencies, etc.</p> <p>Competencies in AV editing.</p> <p>Competencies in multimedia design and management.</p> <p>Business oriented.</p>	<p>These users want to access to performing art resources for re-using this content in different contexts, such as TV production, radio programmes, new multimedia productions, web tv, etc.</p> <p>In particular this user needs to perform very specific research looking for a single frame, a sequence, etc. He needs a semantic oriented description of the contents.</p> <p>The user want information about the rights status of the performing arts resources and where to acquire licenses for re-use.</p>

## 5 Description of use cases

Below, various uses cases have been worked out that give an overview of how various target users can use the ECLAP Social Service Portal. There are more possible uses cases, but these have been identified as the most important, general ones, based on the outline of the functionalities the portal will provide in the Description of Work, the results from the surveys, interviews with experts, literature study, case studies, and the experience of the ECLAP partners.

The following terms are used in the uses cases:

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- Actor(s): the target users that are most likely to perform the use case
- Database: the database contains all the digital object metadata.
- Repository: the repository contains all the digital objects.
- User: the end user interacting with the ECLAP Social Service Portal

The table below gives an overview of all the use cases that are described in this deliverable, which target users are most likely to execute a use cases, and whether the use cases can be performed on Personal Computers and mobile devices. The reasons why a target user group is most likely to perform a use case are explained in the respective use cases.

	Target user group most likely to perform use case:	Use case can be executed on:		
		Desktop PC	Mobile iPad	Mobile iPhone/PDA
<b>LOCATING CONTENT</b>				
<b>Browsing</b>	All	Yes	Yes	Yes
<b>Searching</b>	All	Yes	Yes	Yes
<b>CONTENT ENRICHMENT</b>				
<b>Commenting</b>	Performing arts student Student of higher education Leisure user	Yes	Yes	Yes
<b>Referencing</b>	Student of higher education Teacher of higher education / university Performing arts student Researcher	Yes	Yes	Yes
<b>Tagging</b>	All users from the macro category Education and Research Performing arts practitioner Leisure user	Yes	Yes	Yes
<b>Annotating</b>	All users from the macro category Education and Research Leisure users	Yes	Yes	Yes
<b>Making playlists</b>	All users from the macro category Education and Research Leisure user All users from the macro category Cultural Heritage Professionals	Yes	Yes	Yes
<b>Rating</b>	Leisure user	Yes	Yes	Yes
<b>USING AND SHARING</b>				
<b>Uploading</b>	All users from the macro category Education and Research Leisure user Performing arts practitioner Cultural content manager - content provider (batch uploads,)	Yes	Yes	Yes
<b>Downloading</b>	All users from the macro	Yes	Yes	Yes

	category Education and Research Performing arts practitioner			
<b>Licensing</b>	Tourism operators Media professional	Yes	Yes	Yes
<b>Sharing</b>	Leisure user	Yes	Yes	Yes
<b>COMMUNITY ASPECTS</b>				
<b>Joining groups</b>	All users from the macro category Education and Research Leisure users Performing arts practitioner Content partners	Yes	Yes	Yes
<b>Creating groups (Requesting to create a group)</b>	All users from the macro category Education and Research Leisure user Performing arts practitioner	Yes	Yes	Yes
<b>Creating groups (Executing the request to create a group)</b>	Only the portal administrator	Yes	Yes	Yes
<b>Managing groups</b>	Only the portal administrator or those assigned to be group manager by the portal administrator	Yes	Yes	Yes

**Table 3: Overview of use cases**

Related to the overview of the use cases above, an ECLAP user can have a specific role which determines the privileges he has, and thus the actions he is allowed to execute on the portal. These roles and privileges look as follows:

<b>User role on the portal</b>	<b>Privileges</b>	<b>Target user(s)</b>	<b>Acronym</b>
Unregistered user	Browsing and Searching digital objects, Viewing public content and public groups	Can be all	UR
Registered user	Same as UR, plus Commenting on digital objects, Referencing, Tagging, Annotating digital objects, Making playlists, Rating digital objects, Joining groups accessing private groups (once they are accepted by the group administrator), Request to create a group Uploading digital objects, Downloading digital objects, Licensing digital objects, Sharing digital objects with others	Can be all, except content partners	RU
Content provider	Same as UR, plus Managing digital objects, Uploading content (batch uploads), Managing groups	Content partners	CP
Administrators	All, plus Creating groups	Only partners that have been approved by the	ADMIN



		administrators	
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**Table 4: User roles and privileges on the ECLAP portal**

## 5.1 Locating digital objects

Users can locate digital objects in various ways, mainly through browsing and searching. These two use cases are addressed in this section.

### 5.1.1 Browsing

<b>UC.LOC.001 – Browsing</b>
<b>Goal</b> A user looking for performing arts content wants to explore the ECLAP portal by browsing.
<b>Actor(s)</b> All target users
<b>Short description</b> A user looking for performing arts content wants to explore the ECLAP portal by browsing through the content. The user starts on the ECLAP portal start page and from this page he selects a random content item to view or listen to that triggers his interest.
<b>Preconditions</b> The user does not need to be logged in to perform this use case. He can view the metadata of any content item (audio, video, document, image) that he wants. However, for viewing or listening to some digital objects, he may have to have special permissions, and thus a user account.
<b>Basic flow of events / scenarios</b> <ol style="list-style-type: none"> <li>1. The user starts on the ECLAP portal home page and sees a selection of digital objects.</li> <li>2. The user clicks on one of the digital objects that interests him the most.</li> <li>3. The user lands on the specific page for this digital object.</li> <li>4. The system runs a query on the database in order to find and show related digital objects</li> <li>5. The user views, reads or listens to the digital object (depending on the type of digital object he has selected: video, images, text or audio).The user sees the digital objects which are related to the one he has just view, read or listened.</li> <li>6. The user clicks on the related digital object that interests him, and he lands on the specific page of this digital object.</li> <li>7. The system runs a query on the database in order to find and show related digital objects.</li> <li>8. The user navigates back to the home page by clicking on the [home] option.</li> <li>9. The user selects various faceted search categories (see section 9.4 Faceted search in order to browse through the ECLAP collection (for instance, the digital object type, subject, and person name).</li> <li>10. The user clicks on the first results in the list of digital object that he is presented with.</li> <li>11. The user lands on the specific page for this digital object.</li> <li>12. The system runs a query on the database in order to find and show related digital objects</li> <li>13. The user views, reads or listens to the digital object (depending on the type of digital object he has selected: video, images, text or audio).</li> <li>14. The user leaves the ECLAP portal.</li> </ol>
<b>Alternative flow</b> <p>A2a: The digital object’s content is only visible to certain users. For instance, due to copyright restrictions, the content can only be fully viewed by users belonging to the target user group Education. Therefore, the user needs to get special permission first in order to view the content. The user sees a prompt which allows him to send a request to the administrator of the digital object asking for permission.</p> <p>A2b: The administrator accepts the request</p> <p>A2c: The administrator denies the request</p> <p>A2d: The user receives a message that the digital object can now be fully accessed.</p> <p>A2e: The user receives a message that the request has been denied. This end the flow of events</p>

A2f: The user resumes the Basic flow of events.
<b>Postconditions</b> <ul style="list-style-type: none"> <li>All the actions of the user that result in request to the database and the repository are saved in the statistical analysis back-end system.</li> <li>All the users page views are saved in the statistical analysis back-end system.</li> <li>The use case is saved as a single unique visit in the statistical analysis back-end system.</li> </ul>
<b>Priority</b> High
<b>Relationships with other use cases</b> UC.CA.003 – Managing groups
<b>Remarks</b> None

### 5.1.2 Searching

<b>UC.LOC.002 – Searching</b>
<b>Goal</b> A user looking for performing arts content searches for content by using one or more search terms in the [simple search] and [advanced search] fields.
<b>Actor(s)</b> All target users
<b>Short description</b> A user is looking for performing arts content goes to the ECLAP portal. The user knows what he is looking for, but starts with a simple search on order to see what the ECLAP portal has to offer. The user starts on the ECLAP portal start page and from this page he enters one or more search terms into the [simple search] field. Then, the user executes an [advanced search].
<b>Preconditions</b> The user does not need to be logged in to perform this use case. He can view the metadata of any content item (audio, video, document, image) that he wants. However, for viewing or listening to some content items, he may have to have special permissions, and thus a user account.
<b>Basic flow of events / scenarios</b> <ol style="list-style-type: none"> <li>The user starts on the ECLAP portal home page and enters one or more search terms into the [simple search] field.</li> <li>The user clicks on [search] icon or hits the &lt;Enter key&gt; on his keyboard.</li> <li>The results of the query are presented on the search results page based on relevance.</li> <li>The user sorts the results by title.</li> <li>The user filters the results by selecting the digital object type [video].</li> <li>The user sees a new search results page, only containing the digital objects that match his query, and without the digital object types audio, images, and text.</li> <li>The user chooses to refine these results further and clicks on the [advanced search] option.</li> <li>The user opts to use the same query as in step 1, but is now presented with additional fields in which he can use to enter or select more search terms, which are based on the ECLAP metadata model.</li> <li>The results of the query are presented on the search results page based on relevance.</li> <li>The user selects the search result at the top of the search results page.</li> <li>The system runs a query on the database in order to find and show related digital objects</li> <li>The user views, reads or listens to the digital object (depending on the type of digital object he has selected: video, images, text or audio).</li> <li>The user leaves the ECLAP portal.</li> </ol>
<b>Alternative flow</b> A12a: The digital object's content is only visible to certain target users. For instance, due to copyright restrictions, the content can only be fully viewed by users belonging to the macro category Education and Research. They need to get special permission first in order to view the content. The user sees a

<p>prompt which allows him to send a request to the administrator of the digital object asking for permission.</p> <p>A12ba: The administrator accepts the request</p> <p>A12c: The administrator denies the request</p> <p>A12d: The user receives a message that the digital object can now be fully accessed.</p> <p>A12e: The user receives a message that the request has been denied. This ends the flow of events</p> <p>A12f: The user resumes the Basic flow of events.</p>
<p><b>Postconditions</b></p> <ul style="list-style-type: none"> <li>• All the actions of the user that result in request to the database and the repository are saved in the statistical analysis back-end system.</li> <li>• All the user’s page views are saved in the statistical analysis back-end system.</li> <li>• The use case is saved as a single unique visit in the statistical analysis back-end system.</li> <li>• All the free text queries by the user are saved and can be used to generate a query cloud.</li> </ul>
<p><b>Priority</b> High</p>
<p><b>Relationships with other use cases</b> UC.CA.003 – Managing groups</p>
<p><b>Remarks</b></p> <p><u>ECLAP metadata model</u> In step 8 of the Basic flow of events, the ECLAP metadata is mentioned. See section 6.3 Digital object requirements – front-end for more information.</p> <p><u>Free text searches</u> This use case can be extended with free text searches by users, since the ECLAP portal will also offer users the opportunity to browse and search through the database by making user generated tags and free text queries by other users available as metadata. These user generated tags and free text queries are logged (see ‘Postconditions’ above) can be used to generate a query cloud. A query cloud is a visualisation of frequently used free text search terms by users. The terms in the query cloud function as hyperlinks; when clicked they generate the search results for that specific term in the query cloud.</p> <p><u>Suggestions</u> If a user makes a typing or spelling error, this will be detected by the system, and a recommendation for a search term will be made. For instance, when someone types ‘Shakspeare’ as a search term, this will be detected, and the user will see a message stating: “Did you mean: ‘Shakespeare’?”</p>

## 5.2 Content enrichment

Content enrichment is a complex term that can have many meanings. In the case of ECLAP, content enrichment can be achieved in various ways:

- Automatic enrichment (e.g. automatic translations and addition of technical information)
- Manual enrichment by content partners (e.g. adding more metadata to digital objects than the metadata already available, validating and correcting automatic translations)
- User-generated enrichment (e.g. less formal enrichment such as commenting on and rating content to more structured enrichment such as adding tags to digital objects)

Enrichment will mostly take place on the level of metadata enrichment, where the various metadata fields present in the ECLAP metadata schema will be expanded and enhanced, for instance by mapping the various metadata models and vocabularies used by the partners to each other, and by semantically enriching metadata. Semantic enrichment entails making “the intended meaning of, and the relationships between, information resources explicit and machine processable, to allow machines and humans to better identify, access and (re-)use the resources.” (Geser 2009, p. 25) In the following use cases, the focus will lie on user-

generated enrichment, since the manual enrichment by content partners and automatic enrichment will be developed in WP3, which starts in M4.

### 5.2.1 Commenting

<b>UC.CE.UGE.001 – Commenting</b>
<b>Goal</b> A user wants to add a comment to digital objects on the ECLAP portal.
<b>Actor(s)</b> All target users, although it is expected that Leisure users, Performing arts students and Students of higher education with a high technological skill level are most likely to contribute to this use case.
<b>Short description</b> A user wants to add his opinion and / or insight to a digital object on the ECLAP portal.
<b>Preconditions</b> The user needs to be logged in to perform this use case. The user has already navigated to the page of the digital object.
<b>Basic flow of events / scenarios</b> <ol style="list-style-type: none"> <li>1. The user has viewed a digital object on the ECLAP portal and wants to leave a comment about the object.</li> <li>2. He types his comment in the [comment box] and selects [submit].</li> <li>3. The comment is stored in the database.</li> <li>4. After reviewing his comment, the user notices he has made a spelling error. He selects the [delete] option and removes his comment.</li> <li>5. The comment reply is removed from the database.</li> <li>6. The users submits the comment again.</li> <li>7. The comment is stored in the database.</li> <li>8. The user leaves the ECLAP portal.</li> </ol>
<b>Alternative flow</b> <p>A1. The user has received notification (via e-mail, messages on PC, etc.) about a new digital object uploaded on the portal or about a comment/update related to an existing digital object he has previously commented on. The user follows the link to the digital object in the notification text, resumes the basic flow of events..</p> <p>A1. The user wants to reply to the comment of another user on a digital object. The user selects the [reply] option and resumes the basic flow of events.</p>
<b>Postconditions</b> <ul style="list-style-type: none"> <li>• The comments of the user are stored in the database.</li> <li>• The comments of the user are indexed and can be used for search</li> </ul>
<b>Priority</b> High
<b>Relationships with other use cases</b> UC.LOC.001 – Browsing UC.LOC.002 – Searching
<b>Remarks</b> None

### 5.2.2 Referencing

<b>UC.CE.UGE.002 – Referencing</b>
<b>Goal</b> A user wants to add a reference to a digital object on the ECLAP portal.
<b>Actor(s)</b> The following target users from the macro category education and research are most likely to contribute to this use case since they perform literature research on performing arts, and are thus used to

<p>referencing materials:</p> <ul style="list-style-type: none"> <li>- Student/ Researcher of higher education (focus on research / writing on performing arts)</li> <li>- Teacher of higher education / university</li> <li>- Performing arts student (focus on practice / becoming performing artist)</li> </ul>
<p><b>Short description</b> A user wants to add a reference to a relevant document (book, essay, article, etc) that the digital object of his interest is related to.</p>
<p><b>Preconditions</b> The user needs to be logged in to perform this use case. The user has already navigated to the page of the digital object</p>
<p><b>Basic flow of events / scenarios</b></p> <ol style="list-style-type: none"> <li>1. The user has come across a relevant document about the subject that the digital object represents. He decides to leave a reference to this book on the page of the digital object. He selects the [add reference] option.</li> <li>2. The user sees a menu from which he can select the reference type and add a URL to the document.</li> <li>3. The user selects the [book] as the reference type.</li> <li>4. The user adds a URL to the document (for instance, the links to the book page WorldCat, a network of library content and services)<sup>6</sup>.</li> <li>5. The user selects [save].</li> <li>6. The most important metadata fields (e.g. author, title, publication date) are harvested from Worldcat.org and stored in the database.</li> <li>7. The user sees his contribution of the book reference on the page of the digital object, and the most important metadata fields (e.g. author, title, publication date).</li> <li>8. The user leaves the ECLAP portal.</li> </ol>
<p><b>Alternative flow</b> A4: The URL the user is referencing does not offer harvestable metadata fields. The user will have to fill out these fields himself.  A4: The user has no URL for the reference, since he only has access to an offline version of the object he is referencing. The user will fill out the metadata fields, and leave the URL field blank.</p>
<p><b>Postconditions</b></p> <ul style="list-style-type: none"> <li>• The data of the added reference are stored in the database.</li> </ul>
<p><b>Priority</b> Medium</p>
<p><b>Relationships with other use cases</b> UC.LOC.001 – Browsing UC.LOC.002 – Searching</p>
<p><b>Remarks</b></p> <p><u>Reference types</u> In step 2, the user can choose from a pre-selected list of document types. For this list, it is suggested to use reference types used in citation managers such as RefWorks<sup>7</sup>, Zotero<sup>8</sup> and Mendelay<sup>9</sup>.</p>

### 5.2.3 Tagging

<b>UC.CE.UGE.003 – Tagging</b>
<b>Goal</b> A user wants to add a free text key term or tag to a digital object on the ECLAP portal.
<b>Actor(s)</b>

<sup>6</sup> <http://www.worldcat.org/>

<sup>7</sup> <http://www.refworks.com/>

<sup>8</sup> <http://www.zotero.org/>

<sup>9</sup> <http://www.mendeley.com/>

<p>All target users. The various target users will most likely have a variety of reasons to tag digital object, however. Research on the motivations of people that tag online materials have shown that the reasons are:</p> <ol style="list-style-type: none"> <li>1. Motivations related to indexing</li> <li>2. Motivations related to socialising</li> <li>3. Motivations related to communication (Van Velsen &amp; Melenhorst, 2009, p. 224)</li> </ol> <p>Motivations related to indexing are most likely to apply to target users in the macro category Education and Research, and the sub-group Performing arts practitioner from the Cultural heritage professional category. Motivations related to socialising and communications are most likely to apply to Leisure users. In some cases, this kind of tagging can be similar to leaving a comment.</p>
<p><b>Short description</b> A user wants to add a tag to a digital object on the ECLAP portal, because he wants to add relevant information about the digital object, and make the object easier to find for himself and / or other users.</p>
<p><b>Preconditions</b> The user needs to be logged in to perform this use case. The user has already navigated to the page of the digital object</p>
<p><b>Basic flow of events / scenarios</b></p> <ol style="list-style-type: none"> <li>1. The user wants to add a tag to the digital object and select the [tag] option.</li> <li>2. The user sees a prompt in which he can add his tags. The user adds two tags to the digital object (for instance: ‘british puppet theatre’ and ‘obscure’). He does this by typing in [tag] field in the prompt and by selecting the [add] option after each tag.</li> <li>3. The tags are stored in the database.</li> <li>4. The tags are indexed and added to the folksonomy.</li> <li>5. The user leaves the ECLAP portal.</li> </ol>
<p><b>Alternative flow</b> None</p>
<p><b>Postconditions</b></p> <ul style="list-style-type: none"> <li>• The tags are stored in the database and related to the digital object.</li> <li>• The tags are indexed and become searchable .</li> <li>• The tags are indexed and added to the folksonomy.</li> </ul>
<p><b>Priority</b> Medium</p>
<p><b>Relationships with other use cases</b> UC.LOC.001 – Browsing UC.LOC.002 – Searching</p>
<p><b>Remarks</b></p> <p><u>Folksonomy</u> The tags that are added by the ECLAP users will contribute to the ECLAP folksonomy. This is a set of categories that are the result of the tags that are added to digital objects by users. In other words: a folksonomy emerges through collective tagging efforts. Every time a user adds a tag, it is stored in the database, indexed, and added to the folksonomy. The folksonomy will be used to generate a tag cloud, This is a visualisation of the tags that have been added to digital objects in ECLAP by users. Typically, the more times a tag has been added, the larger this tag is visualised within the tag cloud in order to indicate its popularity.</p>

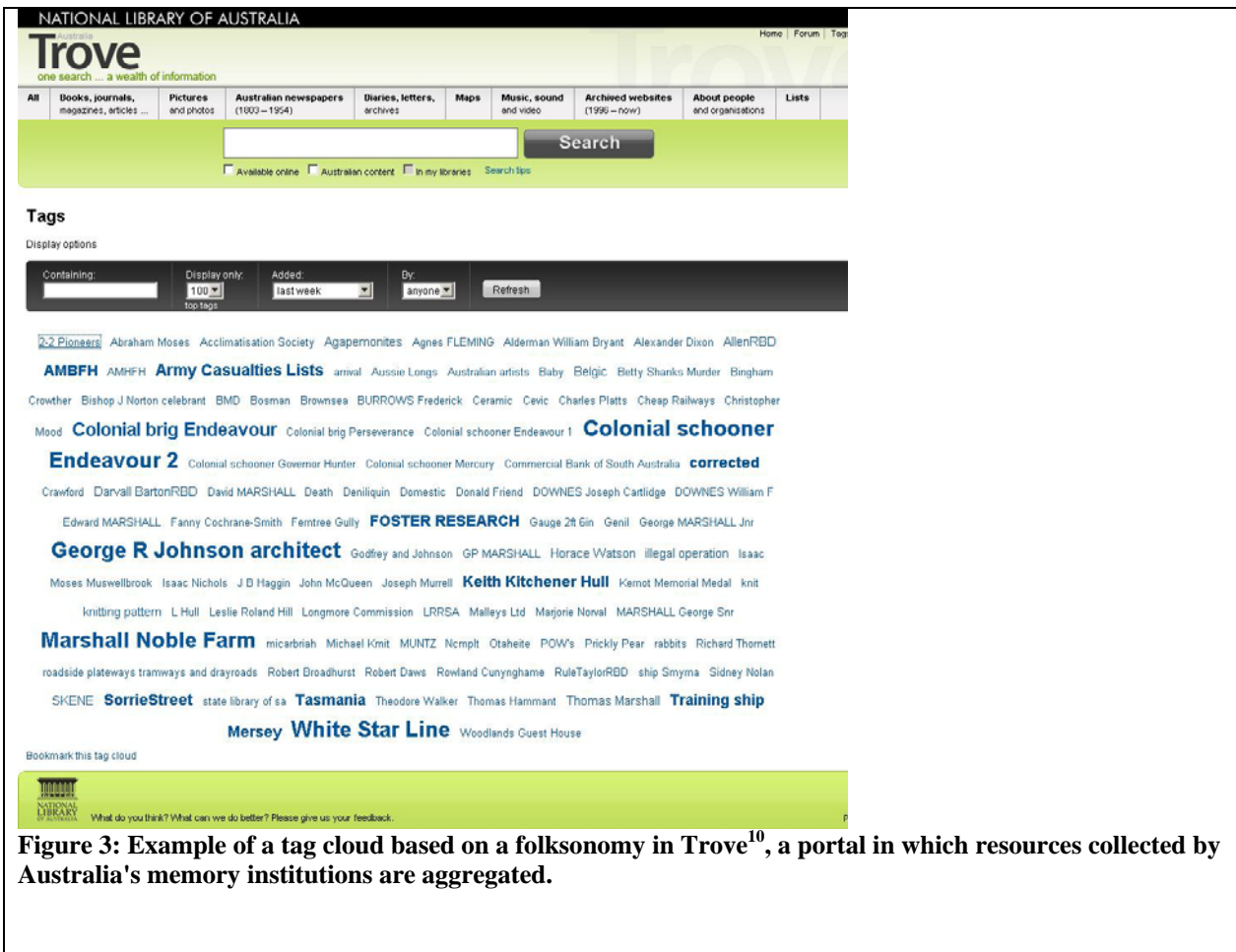


Figure 3: Example of a tag cloud based on a folksonomy in Trove<sup>10</sup>, a portal in which resources collected by Australia's memory institutions are aggregated.

### 5.2.4 Annotating

#### UC.CE.UGE.004 – Annotating

##### Goal

A user wants to annotate a digital object on the ECLAP portal.

##### Actor(s)

All target users. Annotation will however play an important role for the target users in the Education and Research category. ECLAP partners have already worked with annotations for lessons, in which the teacher adds annotations to specific parts of a video containing questions about this segment. Students can then add their answers as an annotation as well, which the teacher can consequently check and accept or reject. Even though this is quite an advanced form of using annotations, it does show the potential of this functionality. Furthermore, Leisure users who have experience with annotation will also be likely to perform this use case.

##### Short description

A user wants to add an annotation to a digital object in ECLAP, in order to share thoughts and information about the content with other users.

##### Preconditions

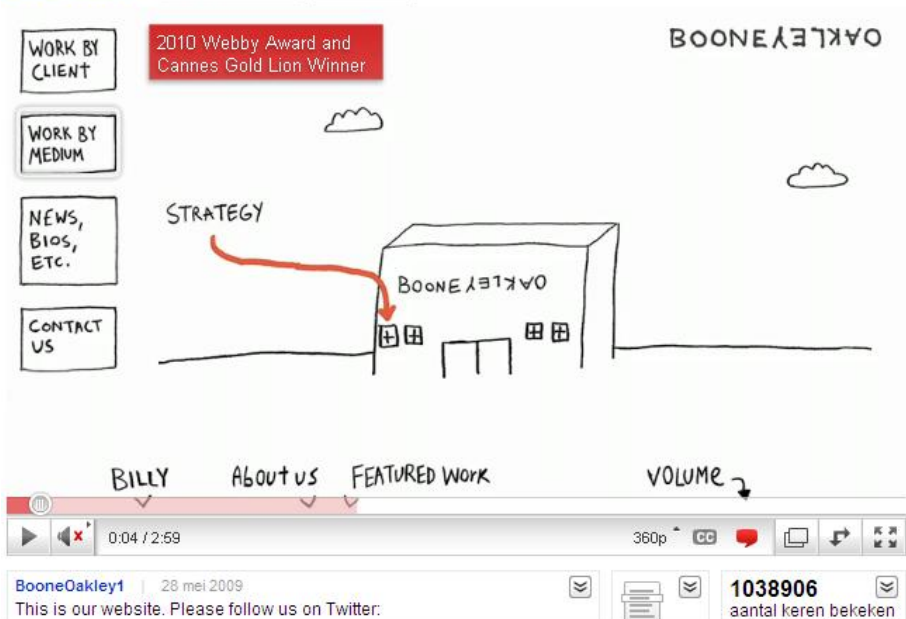
The user needs to be logged in to perform this use case.

The user has already navigated to the page of the digital object

##### Basic flow of events / scenarios

1. The user selects an in and out point of a video, and clicks on the [annotation] option.
2. The user can choose to add a [comment], [reference] or [related item] to the segment.

<sup>10</sup> <http://trove.nla.gov.au/>

<ol style="list-style-type: none"> <li>3. The user chooses for [comment] and types in the information he wants to add to the segment.</li> <li>4. The user chooses [save] to save the annotation.</li> <li>5. The annotation is saved in the database.</li> <li>6. The user performs a search query with the aim of finding other annotations.</li> <li>7. The user finds a video which has an annotation that matches his search query.</li> <li>8. The user sees that the video contains annotations that refer to other digital objects on the ECLAP portal (see Figure 4 below), each content can be an annotation for another object.</li> <li>9. The user leaves the ECLAP portal.</li> </ol>
<p><b>Alternative flow</b> None</p>
<p><b>Postconditions</b></p> <ul style="list-style-type: none"> <li>• The user’s comment stored in the database and related to the digital object.</li> <li>• The user’s comment is indexed and becomes searchable (see UC.FC.SC.002).</li> </ul>
<p><b>Priority</b> Medium</p>
<p><b>Relationships with other use cases</b> UC.LOC.001 – Browsing UC.LOC.002 – Searching UC.CE.UGE.001 – Commenting UC.CE.UGE.002 – Referencing</p>
<p><b>Remarks</b></p> <p><u>The concept of annotation</u> Annotation is different from tagging, since the user is not adding keywords to a digital object in general, but is making notes related to specific moments, segments, or areas in a digital object. Annotations are provided by users either to provide a personal comment, or to share knowledge with other users. (Gazan, 2008)</p> <p><b>BooneOakley.com - Home Page</b> BooneOakley1 28 video's Abonneren</p>  <p><b>Figure 4: Example of annotations in a YouTube video. Ad agency Boone Oakley<sup>11</sup> has built its entire website in YouTube, and uses annotations to refer to their other videos, and comments to certain segments.</b></p>

<sup>11</sup> <http://www.youtube.com/watch?v=Elo7WeIydh8/>



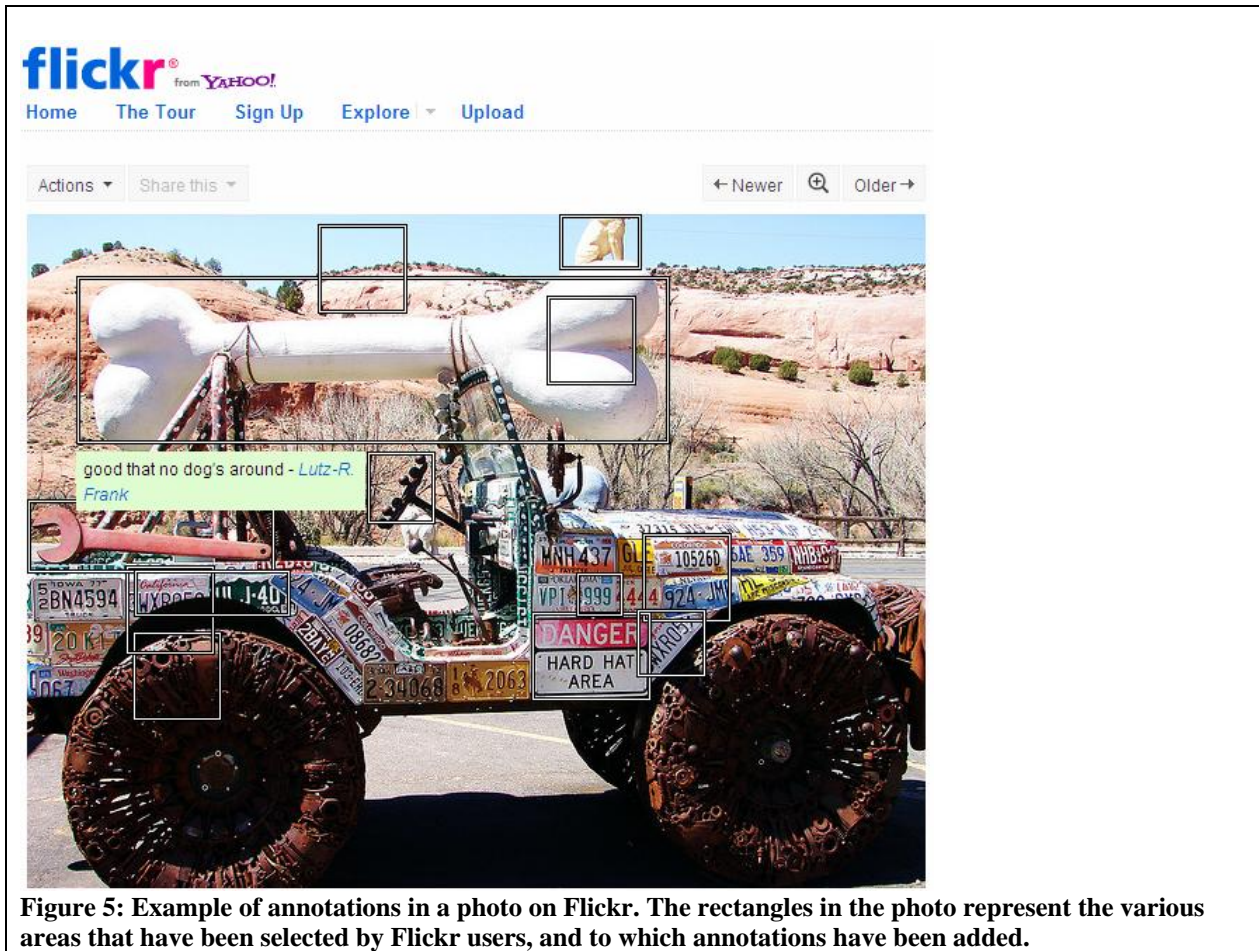


Figure 5: Example of annotations in a photo on Flickr. The rectangles in the photo represent the various areas that have been selected by Flickr users, and to which annotations have been added.

### 5.2.5 Making playlists

#### UC.CE.UGE.005 – Making playlists

##### Goal

A user wants to make a playlist of various digital objects on the ECLAP portal.

##### Actor(s)

All target users. The various target users will most likely have a variety of reasons to make playlists, however.

Target users from the macro category Education and Research are most likely to make playlists related to the topic(s) that they are researching.

Leisure users are most likely to make playlists related to the topic(s) that they enjoy engaging with in their free time.

Target users from the macro category Cultural Heritage Professionals are most likely to make playlists related to the topic(s) that they need to explore for their work, and that they might want to re-use.

##### Short description

A user wants to make a playlist of various digital objects on the ECLAP portal, in order to categorise them and easily retrieve them at a later moment.

##### Preconditions

The user needs to be logged in to perform this use case.

The user has already navigated to the page of the digital object

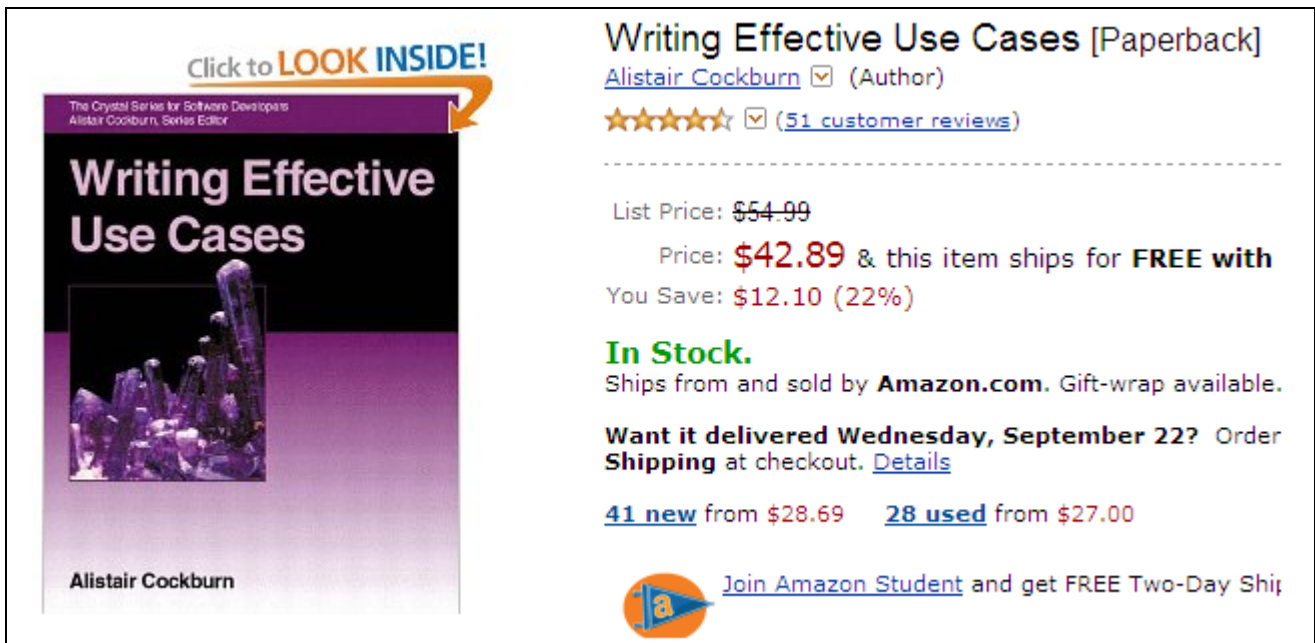
##### Basic flow of events / scenarios

1. The user wants to add a digital object to a new playlist.
2. The user selects the [add to playlist] option.

<ol style="list-style-type: none"> <li>3. The user sees an overview of the playlists he has made before, and the option [new playlist]. He can either add the digital object to an existing playlist, or create a new one.</li> <li>4. The user selects the [new playlist] option.</li> <li>5. The user is asked to fill out information about the playlist (e.g. title, topic, description).</li> <li>6. The user can add tags that describe the playlist, and also opt to select key terms from the controlled vocabulary. The user chooses the [tag] option, add the tags and selects the [save] option.</li> <li>7. The playlist is stored in the database.</li> <li>8. The user performs another search and finds a video that interests him.</li> <li>9. On the page of the video, the user decides he does not want to add the whole video to the new playlist, but only a segment of it. The user selects the start time and end time of the segment he wants to add to his playlist.</li> <li>10. The user selects the [add to playlist] option.</li> <li>11. The user sees an overview of the playlists he has made before, and select the new playlist he has just made.</li> <li>12. The user clicks on the link to his [profile]</li> <li>13. The user selects the [your playlists] option.</li> <li>14. The user clicks on the [new playlist he has just created and sees the digital objects he has added to it.</li> <li>15. The user leaves the ECLAP portal.</li> </ol>
<p><b>Alternative flow</b> None</p>
<p><b>Postconditions</b></p> <ul style="list-style-type: none"> <li>• The new playlist is stored in the database and related to the digital objects in the playlist.</li> <li>• The metadata that the user has added to the playlist is indexed and becomes searchable.</li> </ul>
<p><b>Priority</b> High</p>
<p><b>Relationships with other use cases</b> UC.LOC.001 – Browsing UC.LOC.002 – Searching</p>
<p><b>Remarks</b> None</p>

### 5.2.6 Rating

<p><b>UC.CE.UGE.006 – Rating</b></p>
<p><b>Goal</b> A user wants to rate a digital object in order to express his opinion of the quality of the content.</p>
<p><b>Actor(s)</b> All target users, however Leisure users as expected to use this functionality most. In many portals and social networks, users have the option of rating a digital object in order to express their opinion on it. For instance, on YouTube, users can ‘Like’ and ‘Dislike’ a video, and on Amazon users can leave feedback on the quality of an item by assigning one to five stars.</p>



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**Figure 6: The 5-star rating system in Amazon**

**Short description**

A user wants to rate a digital object in order to express his opinion of the quality of the content. The user can assign one to five stars, one star being the lowest rating and five stars the highest.

**Preconditions**

The user needs to be logged in to perform this use case.  
The user has already navigated to the page of the digital object .

**Basic flow of events / scenarios**

1. The user has just watched a digital object on the ECLAP portal that he liked and he wants to add a rating.
2. The user sees the [rate] option and opts to rate the digital object with five stars.
3. The rating of the user is stored in the database
4. The user sees a message that informs him that he has assigned a five star rating to the digital objects.
5. The user leaves the ECLAP portal.

**Alternative flow**

None

**Postconditions**

- The rating is saved in the database and is related to the digital object.
- The rating of the digital object is indexed and will be used in order to calculate the relative popularity of the digital object.

**Priority**

High

**Relationships with other use cases**

UC.LOC.001 – Browsing  
UC.LOC.002 – Searching

**Remarks**

None

**5.3 Using and sharing**

The use cases in this section deal with various ways in which a user of the ECLAP portal can use and share digital objects: uploading, downloading, ordering and sharing them with others.

### 5.3.1 Uploading

<b>UC.USC.001 - Uploading</b>
<b>Goal</b> A user wants to upload digital objects to the ECLAP portal.
<b>Actor(s)</b> All users. This use case will be performed by target users for a variety of reasons. <ul style="list-style-type: none"> <li>- Target users from the macro category Education and Research will upload digital objects that either are a result of their studies, or that can be used in classes.</li> <li>- Leisure Users will upload materials that they have made themselves, most likely images and video.</li> <li>- Tourism Operators and target users from the macro category Cultural Heritage Professionals will mostly be looking for content for inspiration or re-use , although the sub-target users Performing Arts Practitioners might upload materials they have produced themselves. Cultural content managers that are content providers will mostly provide materials through a batch upload procedure which will be developed for them exclusively (see also the Remarks in this use case).</li> </ul>
<b>Short description</b> A user wants to upload digital objects to the ECLAP portal so it becomes accessible to one or more target user groups.
<b>Preconditions</b> The user needs to be logged in to perform this use case. The user needs to have the rights necessary to upload and publish the digital object.
<b>Basic flow of events / scenarios</b> <ol style="list-style-type: none"> <li>1. The user starts on the ECLAP home page and navigates to his profile.</li> <li>2. On his profile, the user selects the [Upload] option.</li> <li>3. The user sees a prompt in which he has to fill out various metadata fields (such as Title, Rights holder, Category)</li> <li>4. In the same prompt, the user has to select which groups on the ECLAP portal can view the content. He opts to make the digital object [Public].</li> <li>5. In the same prompt, the user is asked to select the location from which the digital object needs to be uploaded. The user navigates to the right folder on his PC, selects the digital object and selects [Upload].</li> <li>6. The digital object is uploaded to the repository.</li> <li>7. The metadata of the digital object is stored in the database.</li> <li>8. The user is directed to the page of the digital object when the upload is completed.</li> <li>9. The user realises he wants to add more to the description of the digital object he just uploaded, so he selects [Edit].</li> <li>10. The user sees the same prompt he used in step 3 and adds more information to the description.</li> <li>11. The user selects [Save] and is directed to the page of the digital object.</li> <li>12. The user leaves the ECLAP portal.</li> </ol>
<b>Alternative flow</b> A5a: The user selects a digital object in a format that the ECLAP portal does not support. A5b: The user sees a message which informs him that the format is not supported, and which informs him of the formats that ECLAP does support. A5c: The upload procedure is aborted..
<b>Postconditions</b> <ul style="list-style-type: none"> <li>• The metadata provided by the user is added to the database</li> <li>• A new digital object type is added to the repository</li> </ul>
<b>Priority</b> High
<b>Relationships with other use cases</b> UC.CA.001 – Joining one or more groups
<b>Remarks</b>

Batch uploads

For content partners, a special upload procedure will be developed which will allow them to provide multiple digital objects at once. DSI has already started development on the batch upload procedure, and will further develop this in WP3.

Metadata fields

The various metadata fields that the user needs to fill out will be determined from M4 onwards by partners working on WP3 and WP4.

**5.3.2 Downloading**

<b>UC.USC.002 – Downloading</b>
<b>Goal</b> A user wants to download a digital object from the ECLAP portal.
<b>Actor(s)</b> All target users. The target users most likely to use perform this use case are: <ul style="list-style-type: none"> <li>- Education and Research, since these users are interested in (re-)using digital objects for their essays or for their classes.</li> <li>- Sub-target group Performing Arts Practitioner, for studying the digital object in order gain inspiration for their production.</li> </ul>
<b>Short description</b> A user wants to download a digital object from the ECLAP portal., because he wants to incorporate it in their essay, class, or because he wants to use it offline in order to gain inspiration of a production.
<b>Preconditions</b> The user needs to be logged in to perform this use case. The user has already navigated to the page of the digital object.
<b>Basic flow of events / scenarios</b> <ol style="list-style-type: none"> <li>1. The user selects the [download] option.</li> <li>2. The user sees a prompt, which asks him in which file format he wants to save the digital object.</li> <li>3. The user selects a file format.</li> <li>4. The user chooses the download location, selects the [Save] option and stores the digital object on his own hard disk.</li> </ol>
<b>Alternative flow</b>  A1: The digital object cannot be downloaded due to copyright restrictions. The download option is not visible for the digital objects that cannot be downloaded.  A14: Due to copyright restrictions, it is not possible for a digital object to be fully embedded. In these cases, only the metadata and descriptions are allowed to be visible on an external web page.
<b>Postconditions</b> <ul style="list-style-type: none"> <li>• The user has a saved a digital object to his own hard disk.</li> <li>• The user tags and key term from the ECLAP vocabulary are stored in the database and related to the digital object.</li> <li>• The user tags and key term from the ECLAP vocabulary are indexed and become searchable.</li> </ul>
<b>Priority</b> Medium
<b>Relationships with other use cases</b> UC.LOC.001 – Browsing UC.LOC.002 – Searching
<b>Remarks</b>
<u>IPR restrictions</u>

IPR restrictions will most likely differ for various types of usage and target users. For instance: does the user want to use a digital object without restrictions, temporarily, for non-commercial or educational purposes? In some cases, clearing the right just to be able to show an object in ECLAP will be difficult, and it is expected that some materials may only be accessed by those users in the macro category Education and Research. These and other issues will be explored in WP4.3: Content Selection and Aggregation for Rich and Cross Media Production, WP5.2: Working Group on Intellectual Property and Business Models for Content and WP6.2: Management of Intellectual Property.

### 5.3.3 Licensing

#### UC.USC.003 – Licensing

##### Goal

A user wants to get a license for digital object from the ECLAP portal, since it is either:

- Not downloadable
- The user wants to acquire extended rights to use it.
- The user needs a higher resolution / higher quality version of the digital object.

##### Actor(s)

All target users. The target users most likely to use perform this use case are:

- Tourism Operators want to obtain digital objects for re-use in brochures, videos, and websites in order to attract tourist, and for offering digital objects to tourist as a service.
- Media Professionals want to re-use digital objects in their productions, such as television and, radio programmes, new multimedia productions, and web videos.

##### Short description

A user wants to order a digital object from the ECLAP portal, since it is either:

- Not downloadable
- The user wants to acquire extended rights to use it.
- The user needs a higher resolution / higher quality version of the digital object.

##### Preconditions

The user needs to be logged in to perform this use case.

The user has already navigated to the page of the digital object.

##### Basic flow of events / scenarios

1. The user wants information on how to order a digital object in order to re-use it.
2. The user sees various metadata fields that are of interest, most notably the rights information and the contact details of the content partner through which a license can be obtained.
3. The user leaves the ECLAP portal.

##### Alternative flow

None

##### Postconditions

None

##### Priority

Medium

##### Relationships with other use cases

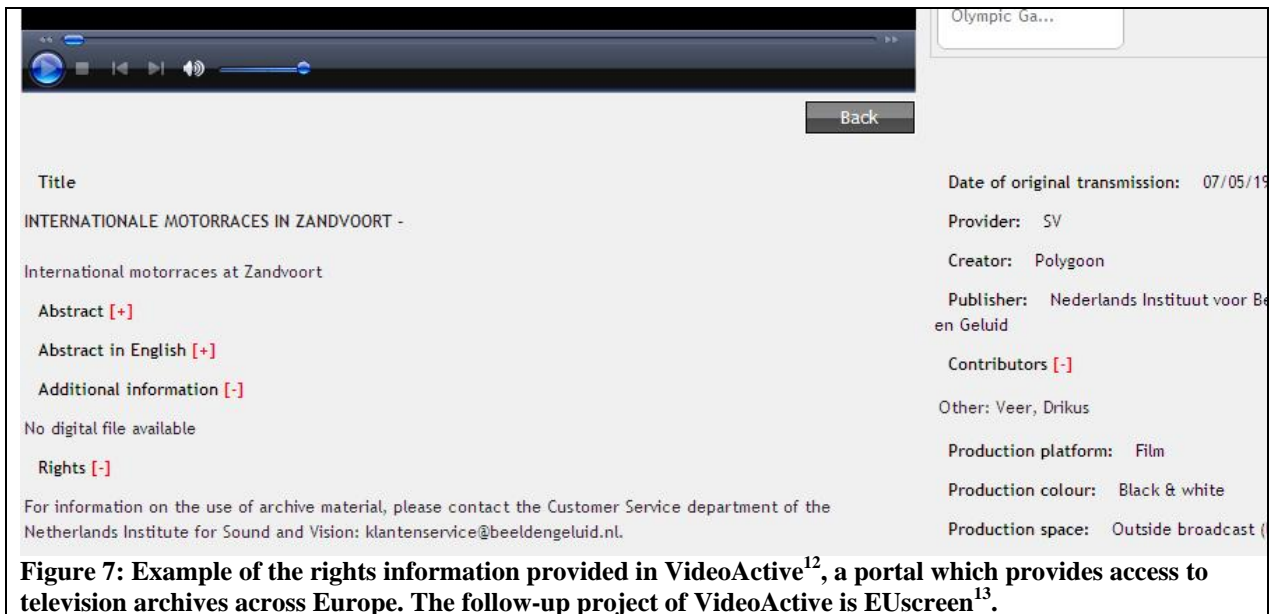
UC.LOC.001 – Browsing

UC.LOC.002 – Searching

##### Remarks

###### External service

The aim of ECLAP is to provide access to performing arts content, not to be a clearing house for those target users that want to obtain licenses. Therefore, the licensing services will be offered externally by the content partners themselves. In most cases, the content partners will act as an intermediate between the user that wants to obtain a license for re-use, and the rights holder, since many content partners do not own the rights of their digital objects themselves.



**Figure 7: Example of the rights information provided in VideoActive<sup>12</sup>, a portal which provides access to television archives across Europe. The follow-up project of VideoActive is EUscreen<sup>13</sup>.**

### 5.3.4 Sharing

<b>UC.USC.004 – Sharing</b>
<b>Goal</b> A user wants to share a digital object.
<b>Actor(s)</b> All target users. The target users most likely to use perform this use case are Leisure users. Most leisure users regularly use social networking websites, and are accustomed to sharing content on websites and social networks such as Facebook and Twitter, and via e-mail.
<b>Short description</b> A user wants to share a digital object from the ECLAP portal with others by embedding the digital object and by sending a link via e-mail.
<b>Preconditions</b> The user needs to be logged in to perform this use case. The user needs to be logged into the website he is posting the embed link to. The user has already navigated to the page of the digital object.
<b>Basic flow of events / scenarios</b> <ol style="list-style-type: none"> <li>1. The user wants to share the digital object, and chooses the [share] option.</li> <li>2. The user is offered multiple sharing options by the system, such as posting the digital object to social media platforms, sharing a link via e-mail, and the option of copying and pasting a HTML embed code.</li> <li>3. The user chooses the option of sharing a link to the digital object on ECLAP on Facebook. (see case 1 and 2 in the remarks below).</li> <li>4. The user sees a pop-up screen in which he can add his own, personal comment and a [share] and [cancel] button.</li> <li>5. The user adds his comment and selects [share].</li> <li>6. The user leaves the ECLAP portal.</li> </ol>
<b>Alternative flow</b>  A1: Due to copyright restrictions, it is not possible for a digital object to be fully embedded. In these cases, only the metadata and descriptions are allowed to be visible on an external web page.

<sup>12</sup> <http://www.videoactive.eu/>

<sup>13</sup> <http://www.euscreen.eu/>



A4: The user first needs to log into Facebook in order to be able to share it.

**Postconditions**

- In the database, the following data is recorded:
  1. which digital object has been shared
  2. which website the digital object has been shared on
  3. which user has shared the digital object
  4. the time and date
- The embedding of the digital object in Facebook is saved as a *trackback* to the statistical analysis back-end system.

**Priority**

Low

**Relationships with other use cases**

UC.LOC.001 – Browsing

UC.LOC.002 – Searching

**Remarks**

Various sharing possibilities and IPR

There are various sharing possibilities, which all have a different implication for IPR issues.

**Case 1: Sharing links**

Sharing an ECLAP link in a social network is not the same as sharing a digital object on a location external to ECLAP. The link takes people to the portal itself, and only then can they play or view the content and see the metadata. It is possible to use existing solutions such as AddToAny<sup>14</sup> or AddThis<sup>15</sup>.

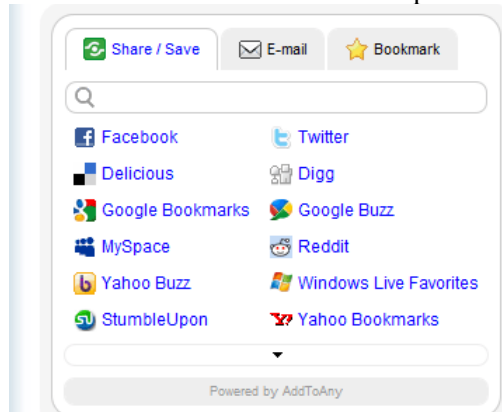


Figure 8: Screenshot of the AddToAny widget

**Case 2: Embedding**

Users on websites such as Flickr and YouTube often allow the digital objects to be embedded and viewed on external websites. Embedding can be done by generating an embed code (HTML, JS) which can be used to view the digital object externally.

Embed restrictions

Embedding (see Case 2 above) can be problematic for content providers, since “it can lead to a lack of clarity as to the source and owner of content.” (see Minerva EC IPR Guidelines p. 50). Moreover, IPR issues can also stipulate that a digital object can only be shown on the portal itself, and that external viewing is not allowed. For instance, for the Video Active project, IPR holders agreed to allow streaming of the video on the portal itself (due to the educational nature of the project), but this was permitted only if embedding the videos elsewhere was disabled. In ECLAP, these and other IPR issues will be formalised by partners in WP4, WP5 and WP6.

<sup>14</sup> <http://www.addtoany.com/>

<sup>15</sup> <http://www.addthis.com/>



Unique URL

In order to generate an embed link for a digital object, it is required that each digital object has its own, unique URL.

## 5.4 Community aspects

In this section, the most important use cases regarding ECLAP portal groups are described. A group can be used to create a specific environment for different users and to define distribution channels. The access to the content can be constrained to the registration to the group. Some groups will not be visible to all ECLAP users. For instance, groups related to ECLAP management should only Giving feedback

### 5.4.1 Joining groups

<b>UC.CA.001 – Joining one or more groups</b>
<b>Goal</b> A user want to join an ECLAP Portal group
<b>Actor(s)</b> All users. Various target users will have different reasons for joining groups on ECLAP. <ul style="list-style-type: none"> <li>- Education and Research: users from this macro category are mostly interested in exchanging knowledge and digital objects related to their research interests.</li> <li>- Leisure Users: these users want to have social encounters with others who share their interests in performing arts.</li> <li>- Performing Arts Practitioners want to share experiences and information with fellow practitioners.</li> <li>- Content Partners: the ECLAP content partners (and technical partners DSI, AXMEDIATECH and NTUA) want to exchange information on the progress of the ECLAP project.</li> </ul>
<b>Short description</b> A user want to access a restricted ECLAP portal area in which discussion on a specific topics are taking place and in which digital objects related to their interests are accessible.
<b>Preconditions</b> The user needs to be logged in to perform this use case.
<b>Basic flow of events / scenarios</b> <ol style="list-style-type: none"> <li>1. The user starts on the ECLAP portal home page and views the group list.</li> <li>2. The user sees which groups are publicly accessible, and which ones are not.</li> <li>3. The user clicks on the restricted group that is that is relevant to his interests.</li> <li>4. The user lands on the restricted group page and select the [</li> <li>5. The user selects the [Request to join] option and a request is sent to the group manager.</li> <li>6. The group manager receives the enrolment request and adds the user to the group.</li> <li>7. The user receives an automatic e-mail notification of successful registration (provided by the Portal).</li> <li>8. The user clicks on the link in the e-mail and lands on the group page, which is now no longer restricted.</li> </ol>
<b>Alternative flow</b> A1. The user wants to view a digital object in which is interested in and that is not public but restricted to members of a specific group. A6: The group manager decides to refuse the user enrolment request (then the flow stops here)
<b>Postconditions</b> <ul style="list-style-type: none"> <li>• The user can view the private group home page and can access all group services that are restricted to group members (forum, multimedia group contents, connection to other members, etc.)</li> </ul>
<b>Priority</b> High
<b>Relationships with other use cases</b> UC.CA.003 – Managing groups
<b>Remarks</b>

None
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## 5.4.2 Creating groups

<b>UC.CA.002 – Creating groups</b>
<b>Goal</b> A user want to create a new group
<b>Actor(s)</b> All users, ECLAP portal administrator (ADMIN). The target users most likely interested in creating groups are: <ul style="list-style-type: none"> <li>- Education and Research: users from this macro category are mostly interested in exchanging knowledge and digital objects related to their research interests.</li> <li>- Leisure Users: these users want to have social encounters with others who share their interests in performing arts.</li> <li>- Performing Arts Practitioners want to share experiences and information with fellow practitioners.</li> <li>- Content Partners: the ECLAP content partners (and technical partners DSI, AXMEDIATECH and NTUA) want to exchange information on the progress of the ECLAP project.</li> </ul>
<b>Short description</b> A user wants to bring together people who are interested in a common topic and provide a thematic space in the ECLAP portal in which access to services and content are restricted to the group members..
<b>Preconditions</b> The user needs to be logged in.
<b>Basic flow of events / scenarios</b> <ol style="list-style-type: none"> <li>1. A user wants to create a new group and selects the [Send a request to the administrator] option on the ECLAP home page.</li> <li>2. The user is redirected to form in which he has to fill out the group name and the reason for creating the group.</li> <li>3. The administrator receives the request via e-mail and clicks on the link which takes him to the new group page.</li> <li>4. The administrator creates the new group in the ECLAP Portal based on the information the user has provided in step 2.</li> <li>5. The administrator adds the person or persons who requested the creation of the group as group member(s).</li> <li>6. The administrator selects the group manager, which is typically the user who requested the creation of the new group..</li> <li>7. The group manager receives an automatic notification related to his/her new role in the group and can now add members, digital objects, and forums and manage the group settings.</li> </ol>
<b>Alternative flow</b> A4a: The administrator decides that the creation of the group is not relevant to the ECLAP project and denies the request. A4b: The user who requested the creation of the new group receives an e-mail message that informs him that his request has been denied.
<b>Postconditions</b> <ul style="list-style-type: none"> <li>• The group members can view the private group home page, can access all group services restricted to the group members (e.g. forum, multimedia group contents, connecting to other members.), and can send messages to the group administrator, etc.</li> <li>• A public presentation page is created for the new group on which non-group members can find information on the new group.</li> </ul>
<b>Priority</b> High
<b>Relationships with other use cases</b> UC.CA.001 – Joining one or more groups
<b>Remarks</b>

None
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### 5.4.3 Managing groups

<b>UC.CA.003 – Managing groups</b>
<b>Goal</b> A user wants to manage a group in ECLAP Portal
<b>Actor(s)</b> Portal administrator Group manager (can be any user who has created a group,.
<b>Short description</b> A user wants to stimulate exchange between the group members, for instance by attracting attention to the topic which has lead to the group’s creation and by providing them with useful and efficient services and information.
<b>Preconditions</b> A group has been created by the Portal administrator.
<b>Basic flow of events / scenarios</b> 1. The group manager (or the ECLAP portal administrator) navigates to the group home page and can gain access to the following services: <ul style="list-style-type: none"> <li>• Editing the public/private home page</li> <li>• Creating forums topics</li> <li>• Sending messages to all group users</li> <li>• Creating new pages</li> <li>• Uploading new digital objects</li> <li>• Managing members (e.g. excluding a member of the group if the member’s behaviour does not confirm to the rules of the ECLAP portal or the specific group)</li> </ul> 2. The group manager (or the Portal administrator) save the changes made on the group profile 3. The group members can see the changes and access to any new group services
<b>Alternative flow</b> A1a: The group manager has received a specific request from a group member which can only be added by the group manager and processed the user’s request. A1b: The user continues the basic flow of events.
<b>Postconditions</b> <ul style="list-style-type: none"> <li>• The group members have access to new services, information and / or digital objects on the group page.</li> </ul>
<b>Priority</b> High
<b>Relationships with other use cases</b> UC.CA.002 – Creating groups
<b>Remarks</b>  <u>Expanding the use case</u> The examples given of the services that a group manager can supply to group members are the most important ones. During the further development of the portal, more services and functionalities can be added.

### 5.5 Access to ECLAP via mobile devices

The use case below describes the possibility for a user to access the ECLAP portal and the content available by using a mobile device, and to organise the downloaded content in his device by using a specific application. A mobile device is defined here as the major mobile platforms on the market, such as Windows Mobile smartphones, iPhone/iPad and/or Android based devices.

### 5.5.1 Using and managing digital objects on mobile devices

<b>UC.MOB.001 – Using and managing digital objects on mobile devices</b>
<b>Goal</b> A user wants to access the ECLAP portal and its digital objects by using a mobile device.
<b>Actor(s)</b> All users.
<b>Short description</b> A user wants to visit the ECLAP portal by using his mobile device to view and download a digital object in a format compatible with the device’s capabilities. Also the user wants to use a specific application available on his mobile device to organize the digital object. so that the content is much more better
<b>Preconditions</b> <ul style="list-style-type: none"> <li>• The user has a compatible mobile device.</li> <li>• The digital object is available in the format which can be viewed on the device.</li> <li>• A specific application for mobiles is available and is compatible with user’s device operative system</li> </ul>
<b>Basic flow of events / scenarios</b> <ol style="list-style-type: none"> <li>1. The user accesses to ECLAP portal and downloads an application specific for his mobile device (the Organizer);</li> <li>2. The user installs the application and starts it.</li> <li>3. A main screen is shown which offers the possibility to the user to select basic operations, such as: <ol style="list-style-type: none"> <li>a. getting access to the ECLAP portal directly with the mobile device.</li> <li>b. using the taxonomy tree for browsing.</li> <li>c. opening the digital object available on the device.</li> <li>d. seeing the digital objects available in his device organised in a list of icons.</li> <li>e. perform a local search of the content he had downloaded to his mobile device.</li> </ol> </li> <li>4. The user select the icon “Web” in the main screen to access the ECLAP portal with the mobile device.</li> <li>5. The user searches for a digital object on the portal by using the mobile device Web browser.</li> <li>6. The user can log in on the portal by using the same credentials used he would when he accesses the portal via a PC.</li> <li>7. The user searches and downloads a digital object if he has the rights to do so.</li> <li>8. After the download a message is shown asking the user to open the digital object.</li> <li>9. The user can decide to open that digital object or to go on the main screen to search the digital objects available on his device.</li> <li>10. When the user selects the icon which identifies the digital object, the digital object is opened.</li> <li>11. The user can perform some basic operation on his device to organize the digital object. For example, he can decide to delete a digital object or to search for updated digital objects. These are digital objects that the user has downloaded to his mobile device and to which for instance new metadata has been added on the ECLAP server.</li> <li>12. The application allows the user to personalise some basic settings which allows him to better organise the digital objects on his mobile device. Basic settings that can be personalised are for instance how to order the results or the list of local objects and the url of the ECLAP server.</li> </ol>
<b>Alternative flow</b> A1a: The user wants to update his application. A1b: The user sees that a new update of the application is available on the ECLAP portal and updates it with a simple and guided procedure.
<b>Postconditions</b> None
<b>Priority</b> High
<b>Relationships with other use cases</b> All other use cases.

**Remarks**

Mobile organiser

The mobile organizer application should search digital objects inside the user's mobile device and organise them into icons and/or lists; the application can show the user the retrieved files via icons.

## 6 User requirements

The use cases describe a basic flow of events or scenario which provides insight in the steps a user takes in order to achieve the goal of the use case. The user requirements provide a formal and structured overview of the various elements that the user expects or needs in order to perform the use cases. In this section, the user requirements and digital objects requirements for the front-end of the ECLAP Social Service portal are described. The sections correspond to the set-up of the use cases. When necessary, extra sections have been added which are only implicitly present in the use cases. Furthermore, some requirements for the back-end are provided, which are needed in order to manage some aspects of the front-end.

### 6.1 User requirements – front-end

The user requirements for the front end that are elaborated on in this section are:

- Locating digital objects
- Viewing digital objects
- Content enrichment
- Using and sharing
- IPR information
- User profile
- Multilingual aspects
- Community aspects
- Mobile device requirements

#### 6.1.1 Locating digital objects

NR	User role	Functionality	Explanation	Priority level
LC1	All	Viewing content on the portal homepage	The user sees a selection of digital objects when he navigates to the ECLAP portal home page.	High
LC2	All	Searching content	The user can enter one or more free text search terms into the ‘simple search’ field.	High
LC3	All	Ordering search results	The user can sort the results from his search queries based on various elements in the ECLAP metadata schema, for instance, by ordering the results based on digital object type, title, or date.	High
LC4	All	Going back to the home page	The user can navigate back to the home page by clicking on the [home] option when he is on the page of a digital object or a group page.	High
LC5	All	Keyword Cloud	The user can use the keyword cloud containing keywords from the ECLAP vocabulary for browsing.	High
LC6	All	Query Cloud	The user can use the query cloud containing words that are frequently used in the free text search queries from ECLAP users for browsing.	High
LC7	All	Tag cloud	The user can use the tag cloud containing tags that have been added to digital object by ECLAP users for browsing.	High
LC8	All	Faceted browsing	The user can select faceted search categories in order to browse through the ECLAP collection (for instance, the digital object type, subject, and person name).	High
LC9	All	Faceted search	The user can search with faceted filters which	High

			are based on the ECLAP metadata schema.	
LC10	All	Multilingual search	All metadata is automatically translated in the back-end, indexed and made searchable. Therefore, the user can perform multilingual search queries. For example: a user searching for ‘puppet’ will also get hits on ‘fantoche’ (puppet in Portuguese), even though that metadata that has not (yet) been translated by a partner.	High
LC11	All	Annotation and comment search	The user can use the indexed annotations and comments that have been added by users to digital objects for search.	Low
LC12	All	Intra-object annotation search	The user can use annotations that have been added by users to digital objects for finding a moment, segment or area within the annotated digital object.	Medium
LC13	RU	Accessing group content and services	Once accepted to a group by a group manager, the user can access and search through all services which are restricted to the group members (forum, digital objects, group members, etc.)	High

### 6.1.2 Viewing digital objects

NR	User role	Functionality	Explanation	Priority level
VDO1	RU or All depending on the accessibility of the digital object	Related objects	The user can see a list of digital objects related to the one he is viewing or listening to.	High
VDO2	All	Thumbnails	The user can see a thumbnail preview of digital objects (for instance in the list of search results, the overview most recently posted content, the overview of most viewed content, list of related objects, etc.)	High
VDO3	All	Viewing references	The user can see the references which have been added to a digital object.	Medium
VDO4	All	Viewing tags	The user can see the tags users have added to the digital object	High
VDO5	All	Viewing folksonomy	The user can see a representation of the ECLAP folksonomy	Medium
VDO6	All, RU and group members in some cases	Viewing favourites of other users	The user can view the favourite lists of other users.	Low
VDO7	All	Viewing group list	The user can view the list of the various ECLAP groups, list of group objects and of group users.	High
VDO8	All	Viewing a public group page	The user can view the public page of a group.	High
VDO9	RU	Viewing restricted group content	The user can view content which is restricted to a group when he has been accepted by the group administrator as a	High

			group member.	
VDO9	All	Previewing ECLAP content with pending IPR issues	The user can preview, in the form of metadata, excerpts and/or edited 'mini-clips' digital objects that cannot be presently put online in their complete version for copyright reasons	Low

### 6.1.3 Content Enrichment

NR	User role	Functionality	Explanation	Priority level
CE1	RU	Reading comments	The user can see the comments left to a digital object by other users.	High
CE2	RU	Commenting	The user can add a comment to a digital object.	High
CE3	RU	Deleting a comment	The user can delete his own comment.	High
CE4	RU	Replying to a comment	The user can reply to comments.	High
CE5	RU	Adding a reference	The user can add a reference to a digital object.	Medium
CE6	RU	Selecting types of references	The user can select the type of reference he wants to add to a digital object (i.e.: a text, an audio file, a video)	Medium
CE7	RU	Adding tags	The user can add a tag to a digital object	High
CE8	RU	Adding annotations	The user can add an annotation to a moment, segment or area within a digital object.	Medium
CE9	RU	Selecting type of annotation	The user can select the type of annotation for a fragment (i.e. comment, reference).	Medium
CE10	RU	Creating a playlist	The user can create a new playlist.	High
CE11	RU	Adding digital objects to a playlist	The user can add a (part of) a digital object to a playlist	High
CE12	RU	Rating	The user can add a one to five star rating to a digital object.	High

### 6.1.4 Using and sharing

NR	User role	Functionality	Explanation	Priority level
USDO1	RU	Uploading a digital object	The user can upload a digital object on the ECLAP portal, provided that she/he has all the rights to upload and publish the object.	High
USDO2	RU	Deleting content	The user can delete the digital objects they uploaded from their profile.	High
USDO3	CP	Multiple files uploading	The user can batch upload multiple digital objects at once.	High
USDO4	RU	Information on uploaded content	The user can receive a notification (by mail or on his profile) about content enrichment activities by other users on the digital objects they have uploaded,	Low
USDO5	RU	Comment notifications	The user can receive a notification (by mail or on his profile) when another user adds a comment to a digital objects he has commented on as well.	Low



USDO6	All, except for content only available for RU / group members	Downloading digital objects	The user can download digital objects, provided there are no IPR restrictions.	High
USDO7	All, except for content only available for RU	Choosing file format for downloading	The user can select the file format he wants to save the digital object in	Medium
USDO8	RU	Licensing digital objects	The user can find information on how to license a digital object	Medium
USDO9	UR	Sharing a digital object	The user can share a digital object from the ECLAP portal with others. The user can choose multiple sharing options such as: posting the digital object to social media platforms, sharing a link via e-mail, copying and pasting a HTML embed code	Medium
USD10	All	Viewing unique URL	The user can view the unique URL that is generated for each digital object page in the address bar of his browser	High

### 6.1.5 IPR information

NR	User role	Functionality	Explanation	Priority level
IPR1	All	Viewing rights information	The user can see information about who he should contact in order to acquire a license for a digital object for purposes other than those that are stipulated on the ECLAP portal.	High
IPR2	All	Viewing rights statement	When applicable, the user can see information about the rights status of a digital object (for instance All Right Reserved or a Creative Commons <sup>16</sup> license).	High
IPR3	RU dedicated to IPR solving	Browsing and searching in a index information about ECLAP content with pending IPR issues	The user can browse and search an index of those materials that cannot be presently put online for copyright reasons.	

#### 6.1.5.1 Viewing rights information and rights statement

As stated in user requirement IPR1, a special field will give information on who a user should contact if he wants to acquire a license for a digital object he wants to re-use it for purposes other than those that are stipulated on the ECLAP portal. This will mostly be the contact information of the content partner who has contributed an object, since clearing of rights is mostly done by institutions themselves, who act as in intermediate between the person wanting to acquire the right and the copyright holder.

<sup>16</sup> <http://creativecommons.org/>

The rights statement (IPR2) is a separate metadata field which will inform the user about the rights status of a digital object (for instance All Right Reserved or a Creative Commons<sup>17</sup> license).

### 6.1.5.2 General remarks on IPR

With regards to the digital objects in the archives of the ECLAP partners, we will be taking into account the following IPR possibilities with regards to playing, embedding and downloading digital objects:

- Right of Play and/or download on PC
- Right of Play and/or download on PDA/mobile
- Right of Play and/or download at Low/high resolution
- Right of Play and/or download for Public and/or reserved on groups and/or reserved to students
- Right of embedding ECLAP content on other WEB pages of other web sites

It is expected that IPR restrictions<sup>18</sup> will be different for various types of usage and target users. For instance: does the user want to use a digital object without restrictions, temporarily, for non-commercial or educational purposes. In many European countries, content that have copyright restrictions can however be used for educational purposes (Minerva, 2008, p. 20), so it will be investigated whether it is possible to offer a secure environment in ECLAP to which only target users from Education and Research have access. These and other issues will be explored in WP4.3: Content Selection and Aggregation for Rich and Cross Media Production, WP5.2: Working Group on Intellectual Property and Business Models for Content and WP6.2: Management of Intellectual Property.

DSI will support the IPR definition by developing an intelligent IPR wizard that will guide the institutions towards setting up the IPR status of their content. The wizard will ask questions about current status and information and will pose additional questions and/or activities and analysis to be performed in order to reach a full understanding of the IPR status. Materials that cannot be provided due to copyright reasons will be indexed and managed by ECLAP, and the index will be fully browseable and searchable online. If possible, previews will be created and made available, in the form of excerpts and/or edited ‘mini-clips’, so as to both gauge and foster the interest in such records. To this end, online ‘rate-this-content’ or ‘wish-list forms’ may also be provided. This gauging of the public’s interest serves the purpose of helping institutions to convince rights owners to make the material accessible online. The access policy for this extra content will be autonomously decided by each institution, according to its interests and guiding principles.

Many ongoing projects (for instance EUscreen<sup>19</sup>, Apenet<sup>20</sup>, European Film Gateway<sup>21</sup>) related to Europeana are dealing with managing IPR in a variety of ways. Notably, Europeana Connect will provide a core set of interoperable licenses that cover rights information for objects in Europeana. Emphasis will be on combining widely used existing licensing mechanisms and services (such as Creative Commons), and on linking to rights clearance support for copyrighted, out-of-print and orphan works. ECLAP is committed to actively contribute to ongoing activities in this domain to avoid overlap. It should be noted that a lot of projects dealing with IPR issues are working only with metadata, whereas ECLAP is focussed on providing a social service portal which provides access to the digital objects as well. The outcomes of their IPR studies are not therefore always comparable with the issues that ECLAP deals with.

### 6.1.6 User profile

Number	User role	Requirement	Explanation	Priority level
UP1	All	Registering	User can register on the ECLAP portal	High

<sup>17</sup> <http://creativecommons.org/>

<sup>18</sup> In some cases, clearing the right just to be able to show an object in ECLAP will be difficult.

<sup>19</sup> <http://www.euscreen.eu/>

<sup>20</sup> <http://www.apenet.eu/>

<sup>21</sup> <http://www.europeanfilmgateway.eu/>

UP2	RU	Password retrieval	User can retrieve password	High
UP3	RU (if group manager)	Identifying groups a user coordinates	Group coordinators can see in their profile of which groups they are the coordinator.	High
UP4	RU	Storing favourites	User can mark their favourite digital objects in order to store them in their profile	High
UP5	RU	Uploaded content	User can see their uploaded content on their profile	High
UP6	RU	Viewing reports of use	The user can visualize a chronology of her/his actions on the portal	Low
UP7	RU	Viewing playlists	The user can see an overview of the playlists he has created in his profile.	High

### 6.1.7 Multilingual aspects

NR	User role	Functionality	Explanation	Priority level
MA1	All	Setting the language of the portal	The user can change the language of all the static texts of the ECLAP Social Service portal into one of the languages available in ECLAP.	High
MA2	All	Enabling/disabling viewing automatic metadata translations	The user can choose to enable or disable viewing automatic metadata translations when browsing or searching (if the translation is disabled, the user will view the information related to the object in the original language of the partner institution that object belongs to)	Medium
MA3	RU, only qualified validator for a given language	User contributed metadata translations	The user can provide translations (that would be marked as “uncertified”) of the metadata already provided by the system.	Low
MA4	All	Translation information	The user can see whether metadata has been translated automatically or if the translation has been validated by an ECLAP partner.	High

#### 6.1.7.1 Setting the language of the portal

User requirement MA1 entails having an option that enables the user to change the language of all the static texts of the ECLAP Social Service portal into one of the following languages: Danish, Polish, Slovenian, Greek, English, Italian, French, Dutch, Spanish, Catalan, Hungarian, German, and Portuguese.

Static texts are the parts of the user interface of the portal that cannot be manipulated by any user. Examples of static texts are:

- the welcome text on the home page
- the text on buttons, e.g. : 'Search', 'Cancel', 'Submit', etc...
- the text in the footer of each page, e.g. : 'Funded by the European Commission'

A few examples of texts that are not static are:

- metadata describing an item in the portal

- user comments
- forum posts

The static texts are firstly automatically translated, but will be validated by the partners in order to ensure they are all correct.

### 6.1.7.2 Enabling / disabling automatic metadata translations

All ECLAP metadata will be automatically translated in the back-end (see section 6.4 User requirements – back-end). These translations are then indexed by the system and made searchable, which mean that users can perform multilingual search queries. For example: a user searching for ‘puppet’ will also get hits on ‘fantoche’ (puppet in Portuguese), even though that metadata that has not (yet) been translated by a partner. These automatic translations are not shown the user by default however – the user is presented with a list of search results with the metadata in their original language, unless a partner has validated and corrected the automatically translated text. In this case, the translation of the metadata can be shown. The reason for this is that the grammar of automatic translations is very often incorrect, and some words can even be incorrectly translated (for instance the Dutch word ‘poppen’ can mean both ‘puppets’ and ‘pupa’ (the transformation stage some insects undergo). However, for users that have no problem with imperfect automatic translations there will be an option which allows them to see all results in their language of choice. In this case, a text on the ECLAP portal will make it clear that what they are a looking at are automatic translations that are very likely to contain errors.

### 6.1.8 Community aspects

NR	User role	Functionality	Explanation	Priority level
CA1	All	Viewing the public presentation page of a specific group of users	The user can choose to view the page of a group, including the name of the person in charge of it, its description, possible links to public pages, etc.;	High
CA2	RU	Request to join a group	The user can send a request to join a group to the group manager .	High
CA3	RU	Accepting a user in a group	The group manager can accept the request of a user to join a group	High
CA4	RU	Participating on a forum	The user can post messages in a group forum..	Medium
CA5	RU	Requesting to create a group	A user can send a request to create a group to the administrator.	High
CA6	ADMIN	Creating groups	After receiving the request of a user who wants to create a new group, the administrator can create it and choose the group manager	High
CA7	RU (if group manager)	Editing the home page of a group	The group manager can edit the public/private home page of his group.	High
CA8	RU (if accepted to a group by the group manager or ADMIN)	Creating topic forum	The user can create a topic in a group forum.	High
CA9	RU (if group manager)	Sending messages	The group manager can send messages to members of his group.	
CA10	RU (if	Creating new pages	The group manager can create new group	High

	group manager)		pages.	
CA11	RU (if group manager)	Managing members	The group manager can manage group members of his group (for instance if the behaviour of the member does not fit the rules of the ECLAP Portal or of the specific group	High
CA12	RU (if group manager) and ADMIN	Saving changes on the group profile	The group manager or the Portal administrator can save the changes made to the group's profile.	High

### 6.1.9 Mobile device requirements

The following requirements are specifically developed for users that access the ECLAP portal and its digital objects through mobile devices.

NR	User role	Functionality	Explanation	Priority level
MUR1	All	Access with mobile	The user can access the ECLAP BPNET portal with mobile devices.	High
MUR2	All	List of content	The user can see the content available on the web page organised in dynamic list of content items (e.g. list of most downloaded, list of top rated content, suggested content).	High
MUR3	All	Downloading digital objects	The user can download digital objects directly on their mobile device (when IPR permits this).	High
MUR4	All	Local search	The user can perform a local search of digital objects available on his mobile device.	High
MUR5	All	Taxonomical browsing	The user can browse content by using the taxonomical classifications.	High
MUR6	All	Organizer	The user can scroll and access the digital objects he previously downloaded on his mobile device by using an organiser application.	High
MUR7	All	Opening digital objects	The user can open a digital object available in the mobile memory directly by clicking on the file.	High
MUR8	All	Deleting digital objects	The user can delete the digital objects available on the mobile device by using the organizer application.	High
MUR9	All	Viewing metadata	The user can view the metadata associated to the object.	High
MUR10	RU	Login	The user can access the portal as a registered users by logging in with his username and password.	High
MUR11	All	Personalise settings	The user can personalise some simple settings of the organizer application, such as how to order search results and the URL of the ECLAP server.	High
MUR12	All	Full screen play	The user can play a video in full screen mode	High

## 6.2 Non-functional requirements – front-end

The non-functional requirements for the front end are:

NR	User role	Type	Non-functional requirement	Explanation	Priority level
NFR1	All	Usability	Intuitiveness	The system should be user-friendly and feel intuitive.	High
NFR2	All	Usability	Simplicity	It should be easy to search for digital objects.	High
NFR3	All	Usability	Look and feel	The portal should have an appealing look and feel	High
NFR4	RU	Usability	Simplicity	The portal should have easy instructions on how to use the various tools and services.	High
NFR5	All	Speed	Performance	The system should have good loading performance	High
NFR6	RU	Speed	Performance	The system should have sufficient network bandwidth for downloading content.	High

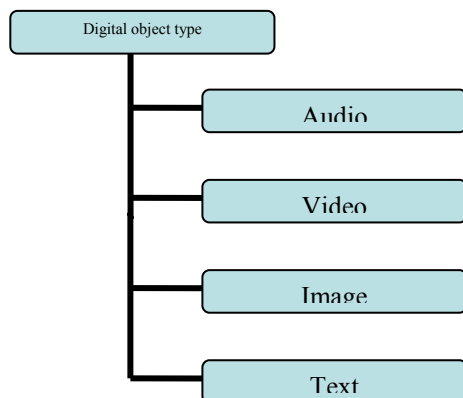
## 6.3 Digital object requirements – front-end

In order to define digital object requirements (digital object types, content, metadata) we took into account:

- The following bibliography on performing arts: Brockett, 1987; D’Amico, 1968; Marotti, 1968; Marotti, 1974a; Marotti, 1974b; Nicoll, 1963; Nicoll, 1966; Schechner, 2002.
- The range of material that partners can currently provide to ECLAP (see Description of Work, Part B of Annex I, pp. 22 – 44).
- The results from the surveys (Annex I).
- The input from expert (Annex II).
- The case studies (Annex III).
- Input from the ECLAP partners provided via e-mail and during the requirements meeting.

### 6.3.1 Digital object type requirements

The main digital object types that are distinguished for ECLAP at this point are: video, image, text, sound. These four types correspond with the object types currently handled by Europeana (Europeana Aggregators’ Handbook, May 2010, p. 15). The survey results have shown that the target users are interested in all four digital object types, since all of them can provide complementary information on the performing arts topic they are interested in. The digital object types can therefore be structured simply like this:



These divisions can be changed and expanded as the project develops. Furthermore, various content types (see the section below) are developed in order to search through the various digital object types easily. These content types can be a sub-set of one or more of the digital object types.

### 6.3.2 Content requirements

Besides their interest in various object types, the target users also have specific requirements for the contents itself that relate to categories of interest for performing arts.

**Genre:** Many target users will have a preference for a certain performing arts genre. From the surveys it has become clear that ECLAP target users are interested in a great variety of genres, which will be taken into account in the work that will be done in WP4: Content Provision and Augmentation.

**Performing arts professional:** A great variety of professionals work in the performing arts, from set builders to dramaturges.

**Content type:** The content type does not specifically indicate what the content is about, but rather indicates the form of the content. For instance, a video about the genre burlesque can be a documentary about burlesque or a registration of a burlesque performance. All content types are a sub-category of one or more digital object types (Book is a subcategory of the digital object type Text, Interview can both be a sub-category of Video, but also of Audio).

**Historical period:** The historical period that the content is about.

**Artistic movements and acting styles:** An artistic movement has a common philosophy or goal regarding performing arts. Within these philosophies, specific acting styles are developed.

Genre (A-M):	Genre (M-Z):	Performing arts professional:	Content type:
Attic comedy	Noh theatre	Acrobat	3D image
Ballet	Nuo	Actor	3D video
Body art	Opera, European	Architect	Article
Bugaku	Operetta	Choreographer	Biography
Burlesque	Pantomime	Clown	Book
Butho	Performance art	Composer	Compilation
Chakkiarkuttu	Postmodern dance	Costume designer	Concert
Chaoju	Puppetry	Critic	Correspondence
Circus arts	Rakugo	Dancer	Diary
Classical music	Realistic drama	Director	Documentary
Comedy	Ritual	Dramaturge	Drawing
Commedia dell'Arte	Rock and Roll	Light designer	E-magazine
Contemporary dance	Satyr play	Make-up artist	Essay
Contemporary drama	Sideshow	Marketing manager	Film
Drama	Silent film	Mime	Flyer
Environmental theatre	Special event, multi-genre	Musician	Fragment
Feast	Spectacle	Patron	Interview
Flamenco	Spiritual music	Performer	Letter
Greek tragedy	Sport	Playwright	Lighting design
Greek tragedy revival	Street performance	Producer	Making of
Happenings	Tango	Seamster	Map
Heikyoku	Terukuttu	Set builder	Masterclass
Jingju	Tōshi Kyōgen	Set designer	Monograph
Kabuki	Tragedy, contemporary	Singer	Movie
Kabuki Buyō		Sound designer	Music (live recording)

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Kagura Kathakali Kolyiattam Kyōgen Liturgical drama Magic Melodrama Minstrelsy Miracle play Mystery play Model opera Modern dance Musical theatre	Trance Trauerspiel Vaudeville Video Art Water puppetry Xiqu (Chinese opera) Yakshagana Yueju	Stage manager Technician Theatre manager Theoretician	Music (studio recording) Painting Performance registration Picture Portrait Promotional materials Prop list Radio programme Rehearsal registration Scale model Score Script / theatre text Seminar Sketches Sound effects Soundscape Speech recording Storyboards Technical document Television programme Theatre building Theatre stage Trailer Treaty Workshop
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<b>Historical period:</b>	<b>Artistic movements and acting styles:</b>
Classical Greece Classical Rome Contemporary Middle ages Modern age Renaissance XX century XXI century	Avant-garde Classicism Constructivism Cubism Cutting-edge Dada Epic (Brechtian) Existentialism Experimental theatre Expressionism Fluxus Formalism Futurism Impressionism Modern Naturalism Post-modern Realism Romanticism Surrealism Symbolism Theatre of Cruelty Theatre of the Absurd



	Theatre of the Oppressed
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As is the case with the digital object type requirements, these categories for content will be expanded during the course of the project. The key terms for each category will be expanded and refined as well, and will in the end result in the controlled vocabulary that will be used for ECLAP.

### 6.3.3 Metadata requirements

A metadata schema for ECLAP will be developed in WP4: Content Provision and Augmentation and WP3: ECLAP Infrastructure and Interoperability. The ECLAP metadata will be published on Europeana, so the metadata schemas used by the ECLAP partners need to be mapped to the one used by Europeana. For many projects that publish their metadata to Europeana, the usual practice is to develop an intermediate schema to which providers map and transfer as much data as possible (see section 6.4 User requirements – back-end for more information). Therefore, a special ECLAP metadata schema will be developed.

The ECLAP metadata schema will contain various elements which can be used for searching and browsing. Many ECLAP partners are now using Dublin Core Metadata Element Set, which consisting of a maximum of 15 descriptive elements (metatag). These elements are<sup>22</sup>:

Term Name	Definition
1-Contributor	An entity responsible for making contributions to the resource.
2-Coverage	The spatial or temporal topic of the resource, the spatial applicability of the resource, or the jurisdiction under which the resource is relevant.
3-Creator	An entity primarily responsible for making the resource.
4-Date	A point or period of time associated with an event in the lifecycle of the resource.
5-Description	An account of the resource.
6-Format	The file format, physical medium, or dimensions of the resource.
7-Identifier	An unambiguous reference to the resource within a given context.
8-Language	A language of the resource.
9-Publisher	An entity responsible for making the resource available.
10-Relation	A related resource.
11-Rights	Information about rights held in and over the resource.
12-Source	A related resource from which the described resource is derived.
13-Subject	The topic of the resource.
14-Title	A name given to the resource.
15-Type	The nature or genre of the resource.

A specific metadata schema for performing arts materials has been developed within the scope of the Global Performing Arts Database (GloPAD)<sup>23</sup> project. DCMI elements were also incorporated in the GloPAD schema, but more specialised visual arts schemas such as Visual Resources Association Core 3.0<sup>24</sup>, the Getty Categories for Describing Works of Art<sup>25</sup>, and the Art Museum Image Consortium Data Specification<sup>26</sup> were used as well. Based on the GloPAD schema, the following search and browse categories are available on the GloPAD website<sup>27</sup>:

GloPAD search and browse categories	Explanation
Piece Records	Title of the show or performance

<sup>22</sup> <http://dublincore.org/documents/dces/>

<sup>23</sup> <http://www.glopad.org/pi/en/about.php/>

<sup>24</sup> <http://www.vraweb.org/vracore3.htm/>

<sup>25</sup> [http://www.getty.edu/research/conducting\\_research/standards/cdwa/index.html/](http://www.getty.edu/research/conducting_research/standards/cdwa/index.html/)

<sup>26</sup> <http://www.amico.org/AMICOLibrary/dataDictionary.html/>

<sup>27</sup> <http://www.glopad.org/pi/en/tips.php/>

Person Records	Name of the author
Production Records	Overview of the production details of a performance
Locations	Country or city where the show was held
Objects and Activities	Objects used in performances
Performing Arts Type	Genre
Performing Arts Group	Company of performing artists
Place	Location where a performance took place or where an art form originated
Person	An entity primarily responsible for making the content of a digital object
Piece	The name or title of a performing arts production
Production	Production record of a specific date that a piece was performed

More specific elements will be added to the ECLAP schema, which will (among other things) incorporate elements which will enable easy searching and browsing through audiovisual digital object types. This is necessary in order to identify the specific audiovisual item's domain "macrostructures" (video, films, audio, etc.) - the main concerns of audiovisual items for the field of performing arts. For example, an audiovisual video which contains a single camera or multicamera recording of a performance is different from a documentary film, or from a video recording an actor's training, or from a decoupage of mixed sources. These more specific filters for searching and browsing will be determined at a later stage, when the activities of WP4 and WP3 start, which will involve aggregating digital objects from the ECLAP partners and identifying the various metadata models that they are using.

For now, we have based ourselves on the DCMI and GloPAD search and browse elements and the specific requirements regarding audiovisual digital objects and have identified 19 basic elements for the ECLAP metadata schema:

Number	Schema element	Explanation
1	<b>Partners/Institutions</b>	<b>The name of the ECLAP partner which has contributed the digital object</b>
2	<b>Date of performance</b>	<b>Date of the first performance</b>
3	<b>Date of recording</b>	<b>Date of creation of the digital object</b>
4	<b>Keyword: Historical period</b>	<b>Historical period in which a work has been created</b>
5	<b>Keyword: Genre</b>	<b>The genre in which the work can be categorised.</b>
6	<b>Keyword: Artistic movements and acting styles:</b>	<b>The artistic movements and acting style in which the work can be categorised</b>
7	<b>Keyword: Performing arts professional:</b>	<b>Type of performing arts professional that the content is about.</b>
8	<b>Keyword: Content type</b>	<b>The form that of the content type, for instance 'Documentary', 'Rehearsal registration', 'Score'.</b>
9	<b>Language</b>	<b>See DCMI</b>
10	<b>Location/ country</b>	<b>Town, village or city where the audio or video has been recorded</b>
11	<b>Venue/ country</b>	<b>Building or place or city where the performance took place</b>
12	<b>Objects</b>	<b>Sets, Costumes, Props, Programs, Prints, Drawings, etc.</b>
13	<b>Performing Art Group</b>	<b>Name of the group performing</b>
14	<b>Performing Art Type</b>	<b>Subcategory of the genre: Musical, Film, Comedy, Opera, etc (for theatre),</b>

15	Person Records	Credits of the audio or video recording
16	Piece Records	Credits of the text or image
17	Production Records	Credits of the production team
18	Title	See DCMI. The title by which the digital object is typically known, for instance ‘Hamlet’.
19	Format	See DCMI: “The file format, physical medium, or dimensions of the resource.”

Table 5: First set-up of the ECLAP metadata schema

As the ECLAP metadata schema is developed, it will also be determined which fields are mandatory fields and which fields are optional.

#### 6.4 User requirements – back-end

Content providers and technical partners of ECLAP will have to make use of the back-end of the portal, for instance in order to add and edit digital objects, edit and change settings, and publish metadata to Europeana.

NR	User role	Functionality	Explanation	Priority level
BF1	CP	Login to back-end	The content provider can login to the back-end.	High
BF2	CP	Uploading digital object types	Content providers can upload digital object types to the back-end.	High
BF3	CP	Uploading metadata	Content providers can upload metadata to the back-end.	High
BF4	CP	Editing metadata	Content providers can edit the metadata of digital objects.	High
BF5	CP	Workflow management	Content providers can to decide when the metadata is ‘rich enough’ for it to be published online.	Medium
BF6	CP	Automatically translated metadata corrections	Content providers can correct automatically translated metadata, which will be considered “certified” after their validation.	Low
BF7	CP	Batch uploading digital objects	Content providers can upload digital object types to the portal. Content providers can then link/relate uploaded digital object types to metadata.	High
BF8	CP	Searching for metadata	The content provider can search through their collections in the back-end of the system in order to find metadata which they want to refine and expand (this includes being able to sort the search results based on the facets which are also available for the front end).	High
BF9	CP	Linking from ECLAP front-end to back-end	It should be possible for a content provider to search on the front end, identify an item that should be enriched and then link directly to the metadata in the back-end.	High

BF11	CP	Uploading and mapping of existing metadata to the ECLAP schema	Providers can import existing digital object metadata using in-house metadata schemas as long as they can provide it in a standardised format such as XML. This information should be transferred to the ECLAP schema and associated with digital object types based on provider-produced mappings and unique identification.	High
BF12	CP (only those that have been qualified to do so by ADMIN)	Deleting digital object types	Content providers can delete digital object types from the portal (provided they have been qualified to do so)	High
BF13	CP (only those that have been qualified to do so by ADMIN)	Managing taxonomy terms	The content providers add, update and translate the controlled vocabulary terms used for the ECLAP taxonomy.	High
BF14	CP	Exporting metadata records	The content provider can export their ECLAP metadata records in their original schema, and in a number of pre-defined export schema.	High
BF15	CP	Controlling access and sharing	The content provider can indicate whether a digital object is ready for inclusion in ECLAP and can enable and disable various access and sharing options (such as embedding and downloading)	High

#### 6.4.1 Automatically translated metadata corrections

The metadata from free text field such as descriptions is automatically translated by the system and indexed for search (see also section 6.1.7.2 Enabling / disabling automatic metadata translations). Since these automatic translations are highly likely to contain errors, they will not be shown to the user. However, when a partner has corrected and validated the automatic translations in the back-end, then the translations will be shown in the search result overview.

#### 6.4.2 Batch upload of digital objects

Apart from the manual linking after batch uploads of digital object types and the corresponding metadata, we should support ‘automatic’ linking of metadata in digital objects. This can be achieved when providers have a unique ID for the digital object type they upload and include that ID in a specific field in the metadata record which is provided separately.

A link to the original digital object type should be provided in case content providers host the digital object themselves. In case the IPR situation permits them to contribute the file to the ECLAP portal itself, they will assign a link where the digital object type can be uploaded from (for instance an ftp server link).

#### 6.4.3 Deleting digital object types

When a partner deletes a digital object type from the back-end, the corresponding metadata should remain on the portal. One reason for this is that a content provider is just removing the digital object type in order to update it, for instance because he uploaded the wrong version, / linked it to the wrong metadata or because he wants to upload a higher quality version. However, deleting should be done carefully because it may lead

to removing comments, links and annotations, and since the aim of ECLAP is to keep the portal up and running, even when the project itself is completed in M30. Therefore the final removal should be performed by the Administrator.

#### 6.4.4 Managing taxonomy terms

The ECLAP taxonomy will consist of the hierarchically structured terms from the ECLAP controlled vocabulary (see also section 6.3 Digital object requirements – front-end) This vocabulary will be developed further within WP3 and WP4 and requires the input of the whole ECLAP consortium.

Once the vocabulary has been developed, the key terms will be translated to the languages of the ECLAP partners. This way, multilingual browsing by using key terms becomes possible. The management of the key terms (additions, corrections, new translations) should be possible in the back-end. It will have to be determined how often these updates will be done, and who can perform them, since it is important to have consensus on the terms used.

### 6.5 Functional requirements – back-end

This section describes the functional requirements the back-end of the system. Although a functional design will be developed later in WP3, the functional requirements described here are key factors for the user requirements and thus have already had to be specified.

NR	User role	Functionality	Explanation	Priority level
FRBN1	All	Automatic translation of metadata	All metadata that is not added via the ECLAP vocabulary is automatically translated by the system in the back-end, indexed and made searchable in order to make multilingual search possible.	Medium
FRBN2	CP	Publishing metadata to Europeana	<a href="#">Once</a> a content provider has enriched the metadata and it has been mapped to the Europeana schema, the metadata becomes available for harvesting.	Medium
FRBN3	All	Automatic linking of metadata and digital object types	Apart from the manual linking after batch uploads of digital object types and the corresponding metadata, the system should be able to automatically link of metadata in digital objects. This can be achieved when providers have a unique ID for the digital object type they upload and include that ID in a specific field in the metadata record which is provided separately.	Medium

#### 6.5.1 Automatic translation of metadata

This requirement entails the automatic translation of all metadata entered by content providers into all of the languages the ECLAP Social Services portal offers (Danish, Polish, Slovenian, Greek, English, Italian, French, Dutch, Spanish, Catalan, Hungarian, German, and Portuguese.)

The automatically translated metadata can be used for the following:

- improving the capabilities of the multilingual search infrastructure
- a starting point for content partners who want to produce the translation of content items in languages additional to their own native language.

### 6.5.2 Publishing metadata to Europeana

Publishing metadata to Europeana comprises the mapping the content providers' metadata schema to the Europeana one, transforming all metadata records and submitting them. The usual practice is to employ an intermediate schema to which providers map and transfer as much data as they can. Therefore, a specific intermediate ECLAP schema will be developed. After the mapping, all the ECLAP aggregations can be transformed and a repository following the Europeana schema can be set up, which they will harvest and publish.

There are several requirements set by Europeana that have to be followed and which have direct implications on the metadata that we are obliged to gather from the providers. Given the fact that we are funded under the THEME [CIP-ICT-PSP.2009.2.2] [European Digital Library – aggregating digital content in Europeana] this is a High priority issue. Europeana requirements should be added or referred to the Europeana Aggregators' Handbook.<sup>28</sup>

This can be separated from the ECLAP portal procedure, nevertheless we need to gather the metadata Europeana demands, regardless what we show or use in the portal. One of the things we need to note for example is that Europeana expects, in the metadata record, persistent links to the provider's site, the digital objects on the provider's site, the rights owner and online licence, etc. ECLAP can provide these links together those of the original content providers, according to the ECLAP role of Aggregator. These and other issues to do with linking to Europeana will be developed in WP3 and WP4, which start in project month 4.

## 7 Future work

In order to further refine, specify and expand the uses cases and user requirements (also for disabled users, see section 10.2 Questions on target user), we will develop a more extensive methodology.

### 7.1 Setting up user groups

Within WP2.3, user groups of experts will be set up. These user groups will represent the various target users of ECLAP, and will include people who will assess the requirements that have been implemented in the ECLAP portal based on this document. These user groups will represent a large variety of users who will be segmented based on their aims, age, skill and computer literacy.

### 7.2 Expert interviews

For this deliverable, a small group of expert from the macro category Education and Research were interviewed. This group will be expanded within the work done in WP2.3 and expert from various target groups will be interviewed in order to gather feedback on the results produced by the ECLAP project. The experts will comment on the ECLAP portal and through their comments the requirements for the portal can be refined and expanded. An interview guide will be developed by partners from WP2.

### 7.3 Extended survey

An extended survey aimed at specific target users will be developed, based on the one that was developed for this deliverable. The extended survey will be distributed among various target users via the user groups that will be set up by FRD.

### 7.4 Focus groups

For this deliverable, no focus groups were held in order to gather input. However, for the next deliverable on use cases and user requirements (D2.1.2, M18) focus groups will be held with the various user groups. The focus groups will be held with around five participants per user group, a moderator, and a minutes secretary who will take notes and make a report. The structure of the focus groups will be set up by the partners in WP2. Various partners already have experience with developing and holding focus groups. This experience will be used as input for the structuring of the focus groups.

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<sup>28</sup> <http://version1.europeana.eu/web/guest/providing-content/>

## 7.5 Usability tests

On the basis of the use cases and the use requirements described in this deliverable, and a meeting of the technological partners of ECLAP in M5, the first version of the ECLAP Social Service Portal and the ECLAP Scalable Backoffice will be developed further. When this work is completed, usability tests will be held with the various user groups in order to establish how they experience the functionalities the ECLAP portal offers, and its look and feel. Various partners already have experience with developing and holding usability tests. This experience will be used as input for the structuring of the usability tests and for validating the user requirements developed in this deliverable.

## 7.6 Use cases and user requirements development roadmap

In the table below, the roadmap for WP2 activities is described, which will result in the revised user requirements and use cases deliverable due in M12. The roadmap does not contain the activities that are related to the actual development of the portal that are related to WP2, such as those carried out in WP3 ECLAP Infrastructure and Interoperability and WP4 Content Provision and Augmentation. These activities will however be closely followed by the WP2 participants and input is provided when needed. The networking activities in WP5 are also important for WP2; Working Group workshops on Theatrical Education and Training (UVA), Intellectual Property and Business Models for Content (B&G) and Best Practices Tools for Performing Arts Digital Libraries and Education (FRD) are held in January 2011 during the ECLAP consortium meeting in Florence. The results of these workshops provide input for the further development of use cases and user requirements.

Date	Responsible / lead	Roadmap element
M5 (November 2010)	B&G, UNIROMA	Start of development of extended survey and expert interview guide.
M6 (December 2010)	FRD	User group set up and maintenance.
M7 (January 2011)	UNIROMA	WP5 Working Group workshops during ECLAP plenary.
M7 (January 2011)	B&G, FRD	Distribution of extended survey to user groups.
M7 (January 2011)	B&G, UNIROMA	Approaching experts for interviews.
M8 (February 2011)	B&G, UNIROMA	Holding expert interviews.
M9-12 (March 2011– June 2011)	B&G, UNIROMA	Desk research, interpretation of survey and expert interview results, writing revised user requirements and use cases.
M12 (June 2011)	B&G	DE2.1.2 Revised user requirements and use cases.

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## 9 Glossary

### 9.1 Controlled vocabulary

The list of fixed key terms that is used to fill out the various metadata elements in ECLAP, such as Subject and Genre. The key terms from the controlled vocabulary that are added to digital objects are indexed and made available for the retrieval of digital objects.

### 9.2 Digital objects

A digital object consists of three elements:

- Digital object type. For major digital object types are distinguished that contain a data stream: video, image, text, sound.
- Content. Content relates generically to the range of material made available via ECLAP. More specifically, content refers to the information contained in the digital object type itself, or in other words, the contents of the data stream in the digital object that people can watch, see, listen to, and read.
- Metadata. The metadata that users need to find digital objects, such as controlled vocabulary terms and content descriptions.

### 9.3 Embedding

Adding a HTML embed code of a digital object on ECLAP to another website, in order to display it there, while it is still hosted on ECLAP.

### 9.4 Faceted search

The clustering of digital objects into categories selected by users. The so-called facets are based on the metadata schema used by a website, for instance digital object types (video, audio, text, images), person names, and location. Faceted search is sometimes also called faceted browsing, since facets can be used just to browse, and in combination with keyword searches. See for an example Figure 12: Smithsonian search interface.

### 9.5 Folksonomy

A set of categories that are the result of the tags that are added to digital objects by users. A folksonomy emerges through collective tagging efforts. Every time a user adds a tag, it is stored in the database, indexed, and added to the folksonomy.

### 9.6 Free text search term

The word or words entered used by an ECLAP user when he performs a search query.

### 9.7 Functional requirements

Technical ‘translation’ of user requirements. Functional requirements are not written from the point of view of the user, but capture what the system should.

### 9.8 Key term

A fixed element in the controlled vocabulary that can be used to fill out the various metadata elements in ECLAP, such as Subject and Genre.

## 9.9 Keyword cloud

A visualisation of the key terms that have been added to digital objects in ECLAP by content partners. Typically, the more times a key term has been added, the larger this key term is visualised within the keyword cloud in order to indicate its popularity.

## 9.10 Metadata schema

A standard set of meta tags (or metadata elements, metadata fields, for example the Dublin Core Metadata Element Set).

## 9.11 Non-functional requirements

A non-functional requirement is a statement of how a system must behave. It is a constraint upon the systems behavior and described the qualities of a system (such as usability, performance, maintainability).

## 9.12 Scenario

Step-by-step overview of the actions a user can perform for a certain task within a use case. Also called Basic Flow of Events

## 9.13 Query cloud

A visualisation of the free text search terms that have been used by ECLAP users in their search queries. Typically, the more times a free text search term has been used, the larger this term is visualised within the query cloud in order to indicate its popularity.

## 9.14 Tag

A free text keyword that consists of one or more words, which can be added to digital objects by all registered ECLAP users.

## 9.15 Tag cloud

A visualisation of the tags that have been added to digital objects in ECLAP by users. Typically, the more times a tag has been added, the larger this tag is visualised within the tag cloud in order to indicate its popularity.

## 9.16 Target user

The users that ECLAP targets (as defined in section 4 Description of the target users, not be confused with the user groups that will be set up in order to validate the portal).

## 9.17 Taxonomy

A taxonomy is defined here as a controlled vocabulary with a hierarchical structure which is used for classifying digital objects. Taxonomy terms are typically structured in parent / child hierarchies (also known as broader term / narrower term hierarchies).

## 9.18 Use case

A use case captures “who (actor) does what (interaction) with the system, for what purpose (goal), without dealing with system internals.” (Malan & Bredemeyer 1999, p. 1-2)

## 9.19 User requirements

User requirements are written from the point of view of the user. They describe “any function, constraint, or other property that must be provided to satisfy the user needs.” (Kujala, Kauppinen & Rekola, 2001).

## **9.20 User group**

A group of experts that will function as a source for testing and validating the results of the ECLAP portal development. These user groups consist of various target users of ECLAP.

## **9.21 User role**

The privileges a user type has on the portal. The various user roles identified are: Unregistered User, Registered User, Content Partner, and Administrator.

## 10 Annex I – Survey results

In this section, we will extract qualitative elements from the first ECLAP requirements surveys which have served as input for determining the most important, general user requirements that are relevant for multiple target users which have been described in this deliverable, and which will guide the future work of determining more fine-grained and specific use cases and requirements. The three surveys (one for ECLAP partners, two for Italian and English speaking target groups) were developed by B&G and UNIROMA in July 2010 and the first versions were distributed among the ECLAP partners for feedback in the beginning of August. After incorporating their comments, the surveys were distributed. The non-ECLAP partner survey participants were contacted via the network of the ECLAP partners; UNIROMA distributed to survey among those in the macro category Education and Research, ODIN and MUZEUM asked target users from the Leisure and Tourism and Cultural Heritage Professionals from their network to fill out the survey; DSI distributed the survey on four LinkedIn<sup>29</sup> groups related to performing arts. The questions from the surveys will be referred to below by a capital ‘Q’ followed by the number of the question (for instance ‘question 6’ is indicated as ‘Q6’).

### 10.1 Who answered the survey

Three surveys were developed which were answered by 37 target users:

- One for the ECLAP consortium partners. Completed by 22 partners. The aim of the ECLAP consortium partner survey was not just to gather input for user requirements, but also for the definition of the target users and to identify their metadata schemas and the ways in which they can contribute digital objects. For this deliverable, the focus was on their ideas on user requirements and target user categories. [refer to the correct place of the survey in this deliverable]
- One for Italian-speaking target users. Completed by 14 users from the macro category Education and Research (1 university professor, 3 PhD students, 6 researchers, 4 primary school teachers). [refer to the correct place of the survey in this deliverable]
- One for all English-speaking target users. Completed by 11 users: 5 from the macro category Education and Research (2 primary school teachers, 3 researchers), 1 from the macro category Leisure and Tourism (1 leisure user), 5 from the macro category Cultural Heritage Professional (4 performing arts practitioners, 1 media professional). [refer to the correct place of the survey in this deliverable]

The ECLAP partners have a lot of experience with performing arts besides their role as a cultural content manager (see Q6, partner survey). For instance, 11 out of the 22 partners that answered the survey are (or have been) performing arts students; 9 (or have been) performing arts researchers and 6 are also performing arts practitioners. Out of the 14 Italian survey participants, 5 indicated that they also belong to other target user groups; one primary school teacher is also an actress, one PhD student is also the director of a theatre aimed at children. Out of the 11 English-language survey participants, 2 target users indicated that they also belong to other target user groups. This supports our methodology of first determining the use cases and user requirements that are of interest to multiple users in order to reach a critical mass, since many users belong to multiple target user groups.

The non-ECLAP partner survey participants belong to a variety of age categories (Q3) and also have a great range of internet and computer experience (Q4-6). Since the differences are great and only a small sample of target users filled out the survey, we will not distinguish the survey results based on these parameters. This will be done at a later stage when a larger group of target users have filled out the survey (see also section 7.6 Use cases and user requirements development roadmap)

Although the ECLAP partner survey was set up a bit differently from the survey developed for the other target users, the questions on user requirements remained the same, in order to be able to make comparisons

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<sup>29</sup> <http://www.linkedin.com/>

and aggregate the results. The results have often not been split out per specific target user group, since this first survey provides qualitative and not quantitative input for the further development of the portal. The aim was to get a high-level overview of the most important requirements of various target users in order to reach a critical mass of users.

## **10.2 Questions on target users**

The partners were presented with the list of target users (Q5) specified in the Description of Work (p. 52-54), and were asked “Various ECLAP target users have already been identified. These are: - Content providers - Performing arts curators / heritage institutions - Performing arts lovers / leisure users - Performing arts practitioners - Researchers - Students - Teachers Are there any other target users that you see as important potential users of ECLAP, and if so, why? Please keep in mind that the target users will be refined and defined further by FRD, and that this serves as the first input for this task.”

- Out of the 22 partners, 8 did not add any new categories and stated that the existing target user groups did not need to be changed.
- 9 of the 22 partners specified which persons belong to which target user group (for instance: “Practitioners should be subdivided according to what they do: actors, directors, producers, set designers, costume designers, make-up artists, [...] print & web designers, and their assistants (the list is not exhaustive).”
- 3 partners indicated that Media Professionals looking for reusable materials are a key target user group.
- 1 partner indicated Community Centers with educational activities are a target user group.
- 1 partner suggested that various disabled users have their own needs, and that the ECLAP website needs to be made accessible for them.

The participants of the Italian and English survey were asked to indicate in which capacity they are involved with performing arts (Q1 and Q2 respectively). All the answers could be categorised in one of the existing target user groups, so no new groups could be extracted.

The answers by the partners were used by FRD to update the target user categories and definitions (see section 4 Description of the target users.<sup>30</sup> Only disabled users were not added to the list. For one, disabled users are just as likely to belong to one of the target user group as any other user. Secondly specialised requirements will need to be developed for the range of disabled users which can only be done when the first version of the ECLAP portal and the interface is ready. Therefore, these requirements will be developed later on in the project.

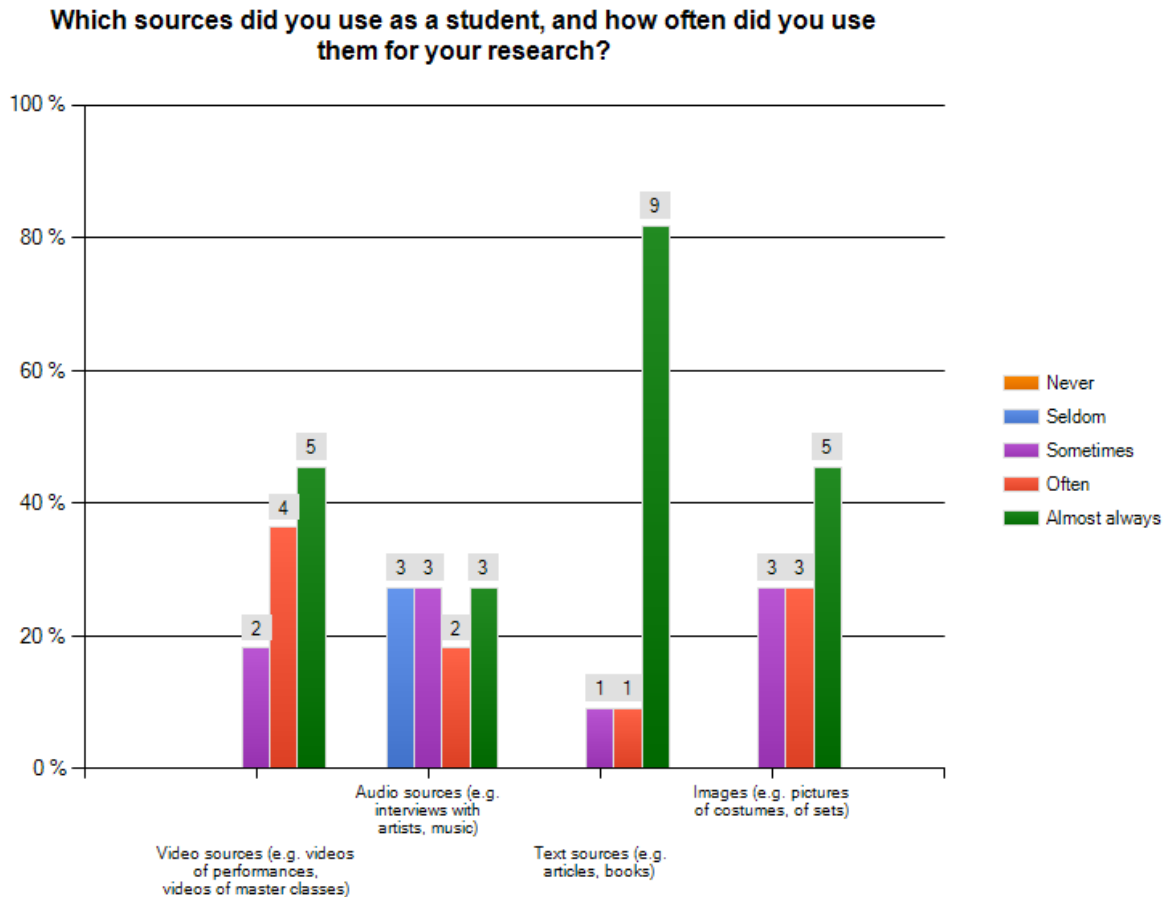
## **10.3 Digital object type preferences**

This broad interest in multiple sources goes for the digital objects types the ECLAP partners indicated that they have used for research. They were asked (Q9) to indicate how often they used which types they used for their research as students, as a performing arts lover, and for their work.

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<sup>30</sup> The target users were divided in the three macro categories (Education and Research, Leisure and Tourism, Cultural Heritage) after the survey took place.

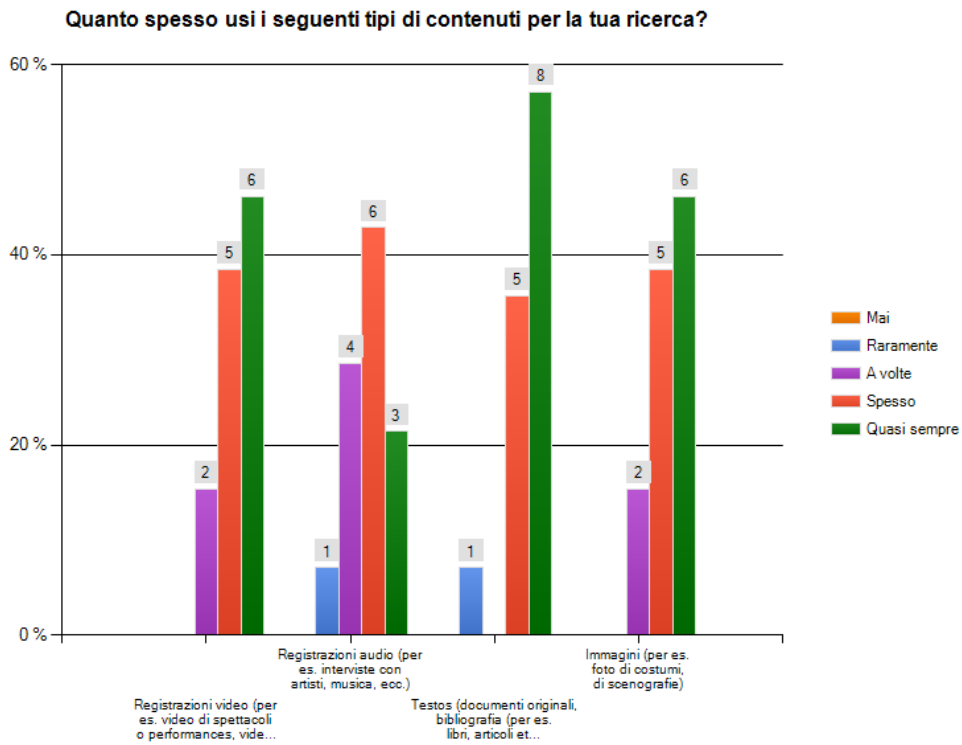




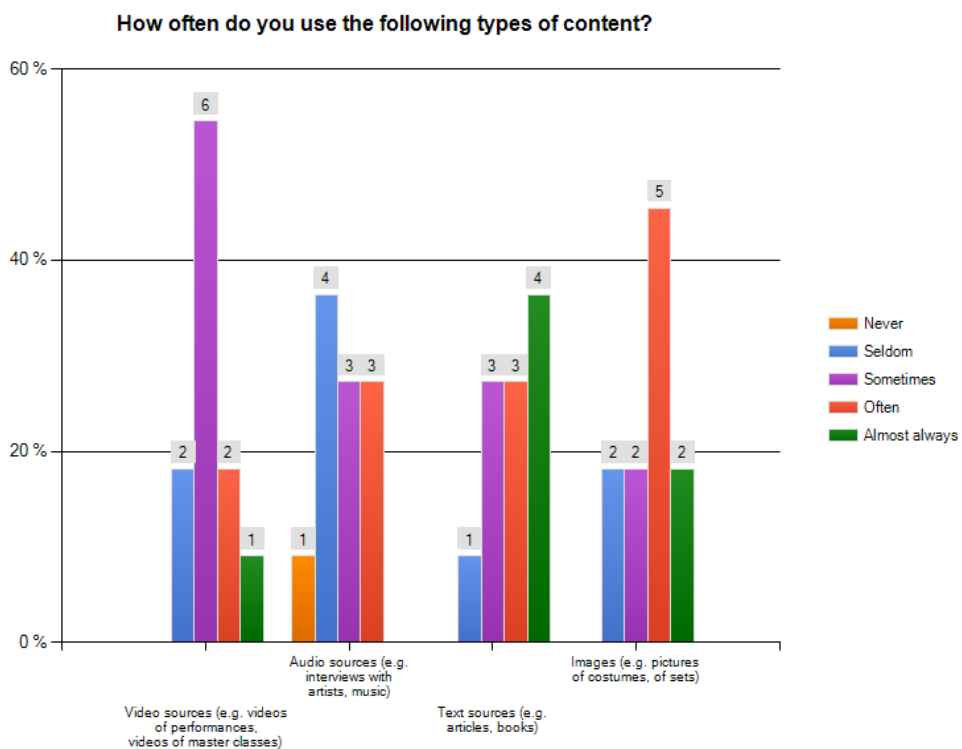
**Graph 1: ECLAP partner survey Q9 - Type of sources used by partners as students**

9 out of 11 partners mostly used text sources for their student research, but video and images were used a lot as well. Only audio sources were slightly less than the other three, but it can be stated that the research done by partners as students is not just limited by studying only one type of digital object.

The Italian target users also indicated a clear need for various types of digital. Here again all kind of sources are requested, with a higher score to text sources records and slightly lower to audio recordings and original documents. In fact: 46.2% stated to “almost always use of video recordings, 42.9% “often” makes use of both audio recordings and original documents, 57.1% “almost always” searches for text sources and 46.2% “almost always” searches for images. This is slightly different for the English survey respondents, 54.5% of which only “sometimes” use video. However, the preference of text and images over audio is also reflected in their answers:



**Graph 2: Italian survey Q9 - Type of sources used for research**



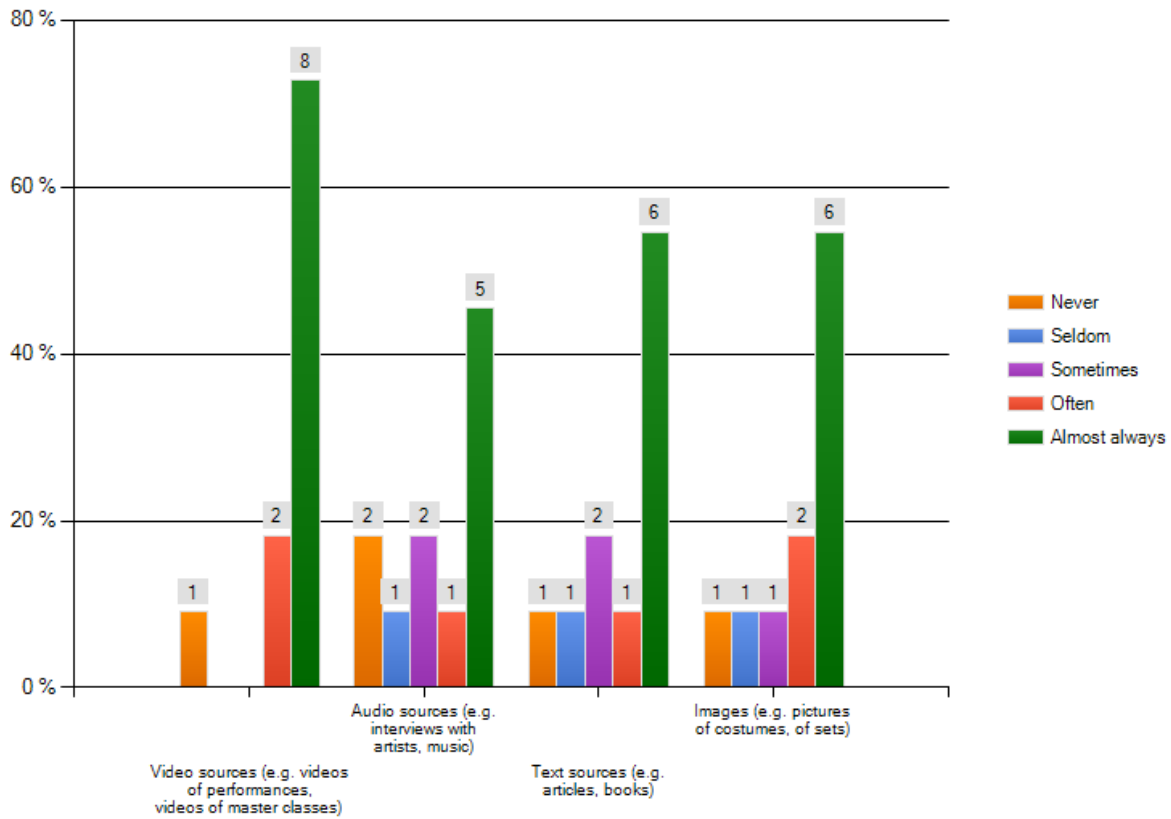
**Graph 3: English survey Q9 - Type of sources used for research**

The partners were also asked to indicate which sources they use for performing arts research in their leisure time (Q11, 11 partners) and for their work (Q13, 20 partners). These results are slightly different, since

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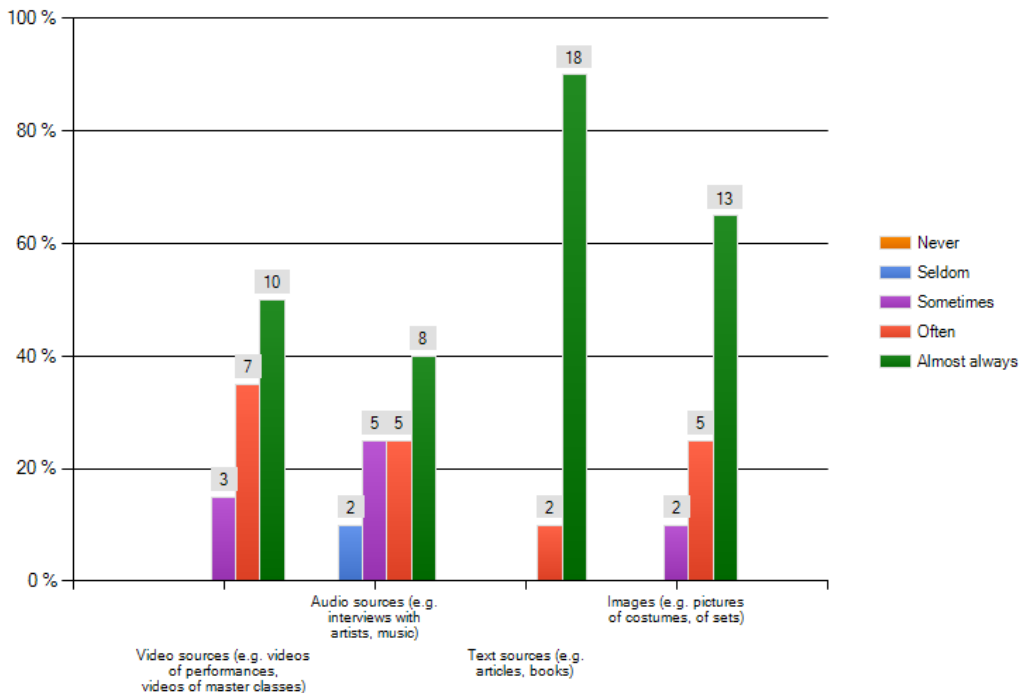
partners use video much more often in their leisure time (72.7% “almost always”) than for their student research, whereas 90% uses text sources “almost always” for their work:

**Which sources do you use out as a performing arts lover / leisure user, and how often did you use them for your research?**



**Graph 4: Partner survey Q11 - Type of sources used by partners as performing arts lovers**

Which sources do you use for your work, and how often do you use them for your research? If you no longer do research for your work, please base your answers on your previous experiences.



Graph 5: Partner survey Q13 - Type of sources used by partners for their work

These results show that target users from various categories are interested in a wide variety of digital object types. Further research through extended surveys and focus groups held amongst specific target users will have to demonstrate this in more details, but it is clear that video, image, text and to a lesser extent audio are all important to users. Since ECLAP brings together a wide variety of collections from different content providers, this necessary broad range of digital object types will be made available on the ECLAP portal.

## 10.4 Questions on content preferences

Survey participants were asked various questions about their content preferences:

- Areas of interest for performing arts (Q8, Q10, Q12 partner survey; Q8 non-ECLAP partner surveys)
- Preferences for the geographical scope of the content (Q7 partner survey; Q7 non-ECLAP partner surveys)
- Content type preferences (Q15 partner survey; Q10 non-ECLAP partner surveys)

### 10.4.1 Areas of interest

The survey participants were asked: “What keywords would you use to describe the performing arts materials of your interest? These keywords should (at least) refer to: topics, themes, fields of research, disciplines, or research methods. For instance: 'Shakespeare', 'Commedia dell'arte', 'Dance performance in WWI', 'Pantomime'.” The partners could answer this question specifically for the research they had done as students, leisure users and for their work, but it turned out that there were no big differences between the research areas they had focussed on as different target users. Therefore, the results presented here are aggregated. 20 out of 22 partners and all 25 non-ECLAP survey participants answered the questions.

Areas of interest specified by survey participants	Times mentioned in:			Total
	Partner survey	Italian survey	English survey	
Artistic movement and acting style (e.g. Classicism, Realism)	9	2	2	13

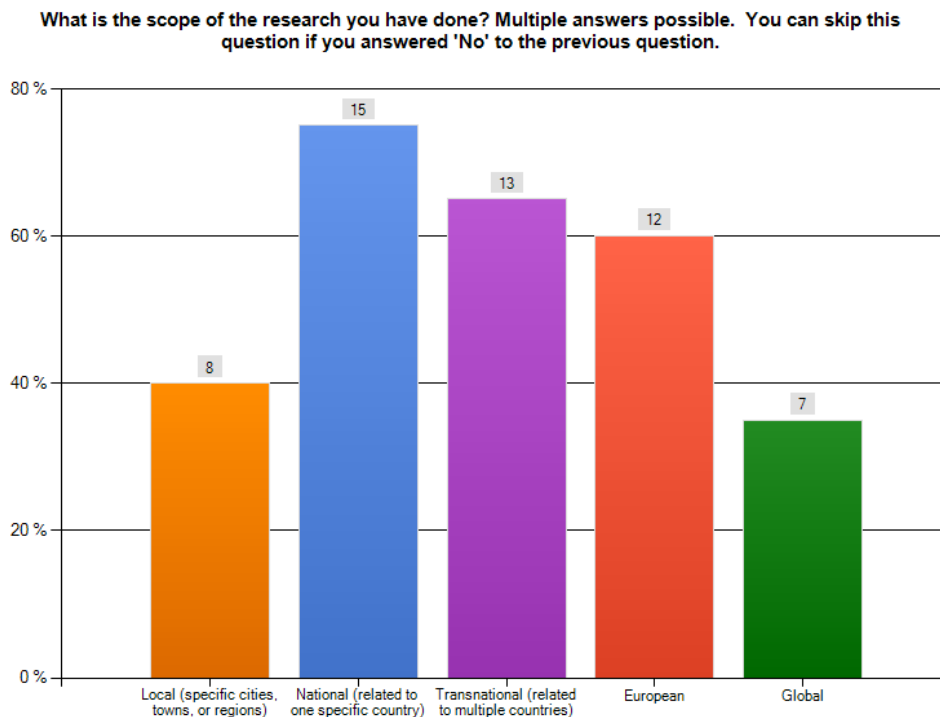
Genre (e.g. puppetry, dance)	13	10	6	<b>29</b>
Historical period (e.g. XX Century, Middle Ages)	13	5	5	<b>23</b>
People (e.g. dramaturges, actors, playwrights)	13	7	3	<b>23</b>
Theme (e.g. semiotics, feminism)	12	6	3	<b>21</b>

**Table 6: Areas of interest of the survey respondents**

From the answers it becomes clear that most target users are interested in performing arts genres, followed by historical periods, people and themes. Artistic movements have the lowest score, but are still of interest to over a third of the survey participants. The specific answers on artistic movements and acting styles, genres and historical periods have been used as input for the table of key terms in section 6.3.2 Content requirements. Themes and people names (for instance Shakespeare, Grotowski) have not been specified yet, since more research is needed on which vocabularies (and thus which key terms) to use for this. This will be done in the scope of the activities of WP3 and WP4 in the coming months.

### 10.4.2 Geographical scope

The ECLAP partners that do research on performing arts were asked: “What is the scope of the research you have done? Multiple answers possible”



**Graph 6: ECLAP partner survey Q7 - Geographical scope of research**

These breadth of the results are comparable to those of the target user surveys, although a national scope is more present in the research of the content partners. Only few out of the 14 Italian target users limited their geographical research scope to Local (14.3%) or National (14.3%) while the majority indicated Transnational (71.4%), followed by European (28.6%) and Global (35.7%). The numbers for the English-language survey are: Local (36.4%), National (27.3%), Transnational (45.5%), European (45.5%), Global (63.7%).<sup>31</sup>

<sup>31</sup> The percentages add up to more than 100%, since the survey participants could select multiple answers.

From these results, it becomes clear that performing arts researchers are interested in sources with various geographical scopes. This highlights the importance of the ECLAP project, since it will offer centralised access to performing arts sources from a great variety of locations. These results also demonstrate that ECLAP users will need to be offered tools and recommendation features that will connect digital objects that are available on the portal to their research interests, without limiting this to a geographical scope.

### 10.4.3 Content types

The survey participants were also asked about their content type preferences (Q15 partner survey, Q10 target user surveys): “What do you see as the most important specific content that should be available in a portal with content from European performing arts institutions such as ECLAP? This means specific content like audio interviews with artists, recorded performances, books on playwrights, articles on theatre history, pictures of costumes, etc.” 36 out of 37 participants underlined that in order to have a proper choice, the portal should offer all kind of content types and none of them answered that they are only interested in just one content type. Many people (27) mentioned a specific interest in performance recordings, since these are so often hard to access online. Pictures, books, articles and interviews were the other content types that were mentioned the most. The complete overview of mentioned content types looks as follows:

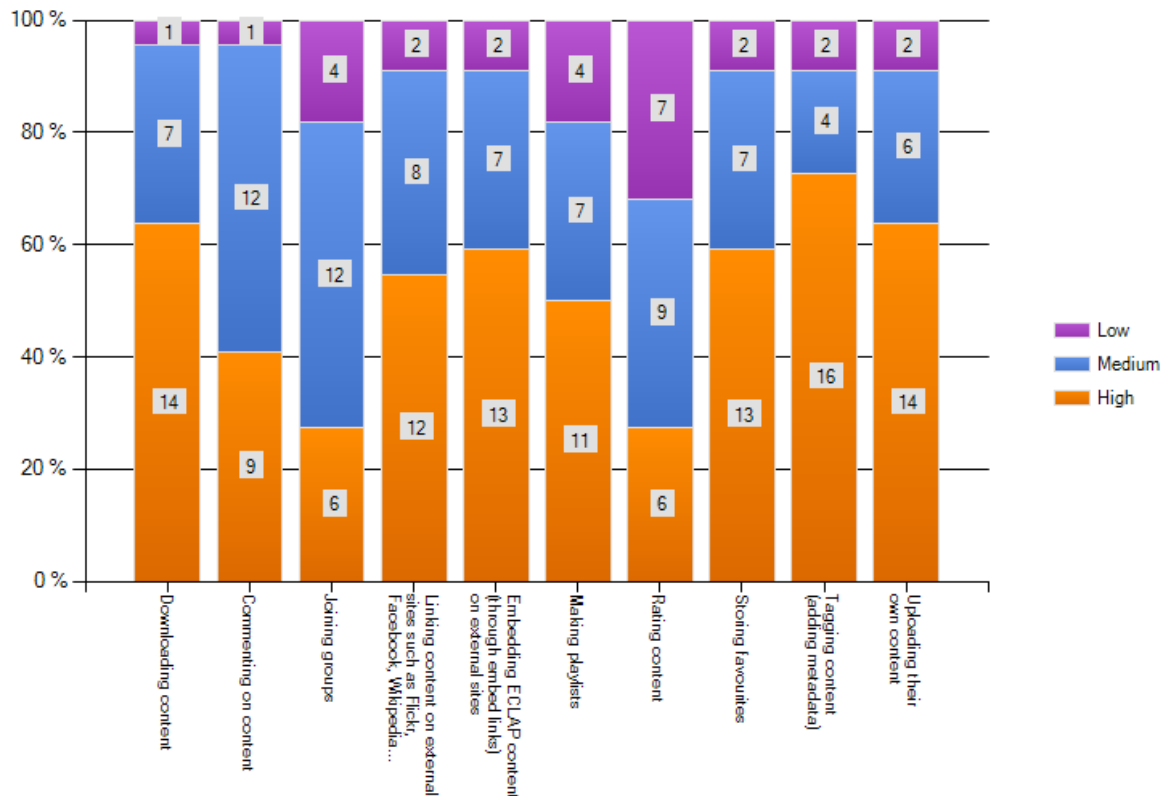
Specific content type mentioned by survey participants	Times mentioned in:			Total
	Partner survey	Italian survey	English survey	
Article (general)	7	1	3	11
- Article and review (blog)	1			1
- Article and review (printed media)	2	1	1	4
Book	7	3	5	15
Correspondence	2	4		6
Diary	2			2
Drawings	1	1		2
Essay	3	3	1	7
Film	1			1
Interview	7	2	4	13
Lighting design		1		1
Masterclass	2	1		3
Music	2	2		4
Painting	1			1
Performance registration	14	7	6	27
- Multicamera recording	2	1		3
Picture (general)	5	3	2	10
-Picture of costumes	5	1	1	7
-Picture of performances	2	2	1	5
-Picture of performing artists	3	1		4
-Picture of sets	5	1		6
Promotional material	5	2		7
Radio programme	1			1
Scripts / theatre text	3	3		6
Seminar	1			1
Sketches	2	1		3
Rehearsal registration	3	3		6
Technical information	1			1
Workshop	1	2		3

**Table 7: Content type requirements according to the survey respondents**

Some survey participants also indicated that they wanted access to database-like content, such as biographies, jobs in the performing arts world, links to performing arts websites, information on theatres, information on the performing arts agenda for a certain region, etc. This is not one of the main objectives of ECLAP, although it will be good to keep into account the possibility of linking to databases that do contain this type of information. More than one out of five survey participants stressed the need to collect various content types about a subject and thereby creating collections, somewhat similar to creating monographs. ECLAP will offer this to users by adding key terms from the vocabulary to digital objects, which will allow users to browse through the collections by using the various facets. By organising digital objects in this way, ECLAP portal users can compare various digital objects from different collections, regardless of their origins and digital object type.

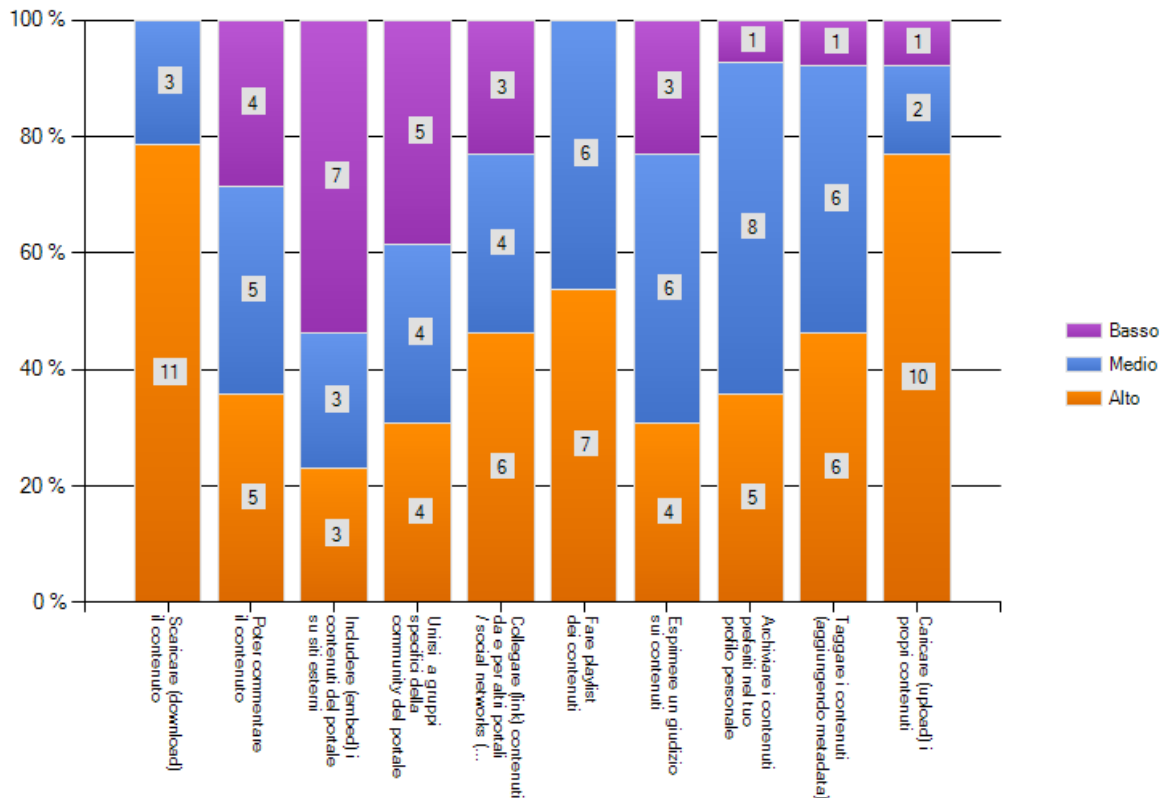
### 10.5 Questions on user requirements

The survey participants were asked to rank the importance general actions that users can perform ECLAP portal (Q18-Q21 partner survey; Q15-Q18 Italian and English survey). All 37 participants answered this question.

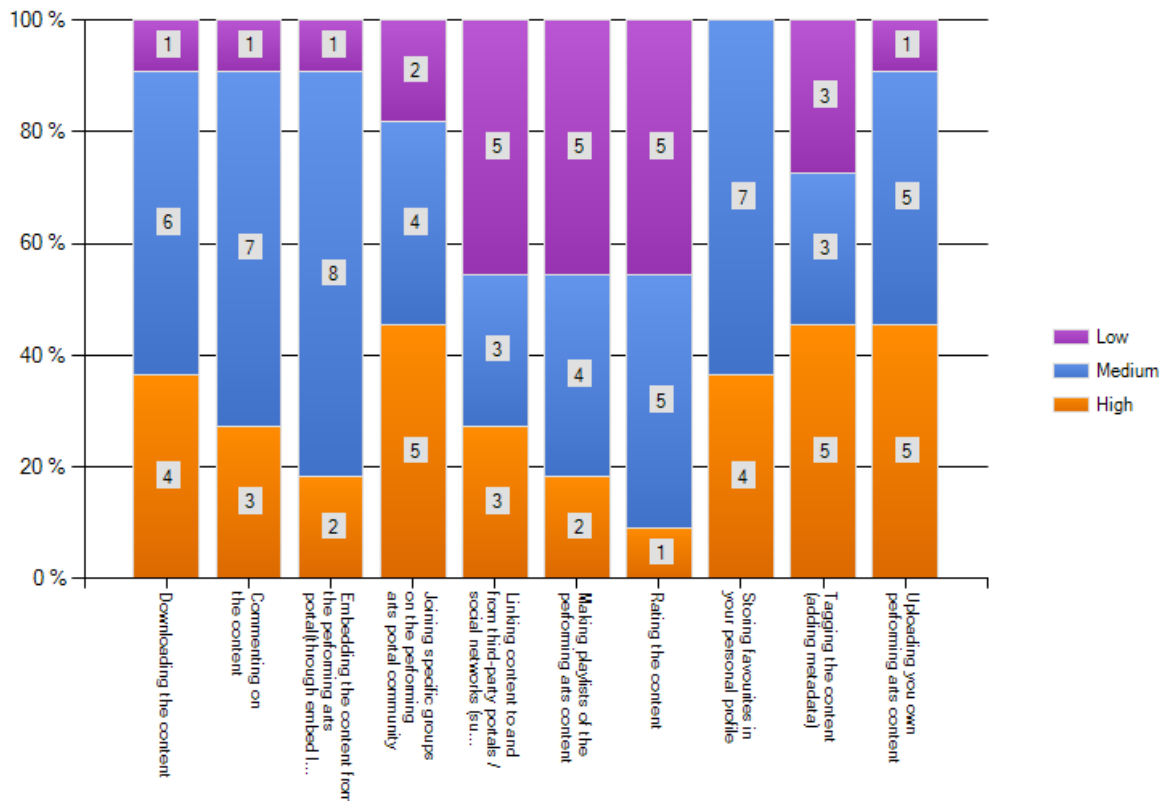


Graph 7: Priority level of actions users can perform on the ECLAP portal according to partners

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Graph 8: Priority level of actions users can perform on the ECLAP portal according to Italian survey participants



Graph 9: Priority level of actions users can perform on the ECLAP portal according to English survey participants

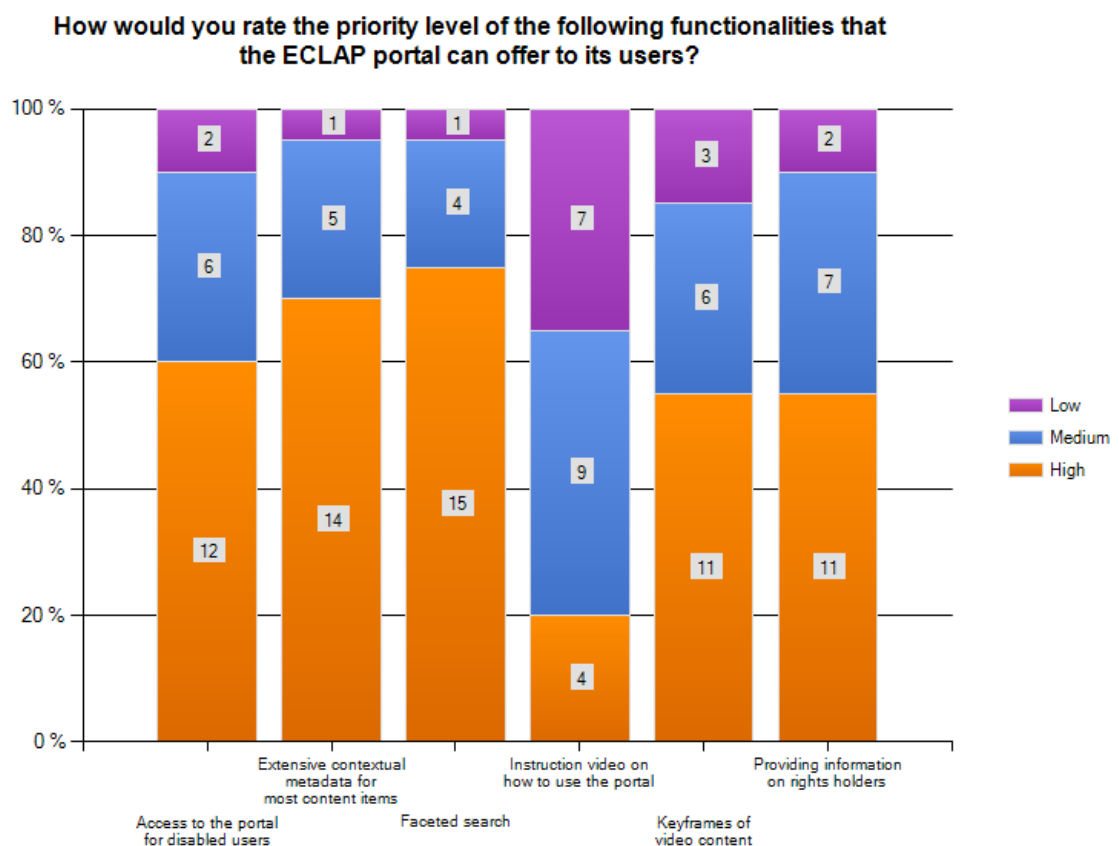


Tagging, downloading content, embedding content, storing favourites and uploading and deleting own content by users are seen as the most important user requirements by the partners. Joining groups, commenting on content and rating content score somewhat lower. However, none of the actions have a very low score. The results of the Italian and English survey vary quite a bit. The Italian users from the macro category Education and Research are mostly interested tagging, making playlists, downloading digital objects and uploading their own digital objects. The survey participants from the English language survey are less interested in making playlists, but have an interest in tagging, downloading and uploading digital objects as well. They are more interested in social activities than the Italian respondents, such as commenting, joining groups and embedding content on external sites.

In Q19 of the partner survey and Q16 Italian and English target user survey participants were asked what OTHER actions user might want to perform on a performing arts portal such as ECLAP. This resulted in the following suggestions:

- Interacting with and contacting other users (7)
- Tracing the use of your uploaded content (4)
- Easily comparing digital objects (3)
- Making a lesson my combining various digital objects (2)
- Linking to your external online collections (2)
- Access to the folksonomy which results from the user tags added to digital objects (1)
- Annotating segments of digital objects (1)
- Saving fragments of audiovisual objects to your playlist (1)
- Links to external bibliographies related to digital objects on the ECLAP portal (1)
- Seeing the favourites of other users with related interests (1)

Furthermore, the partners were asked to rate the priority level of various functionalities (Q20):

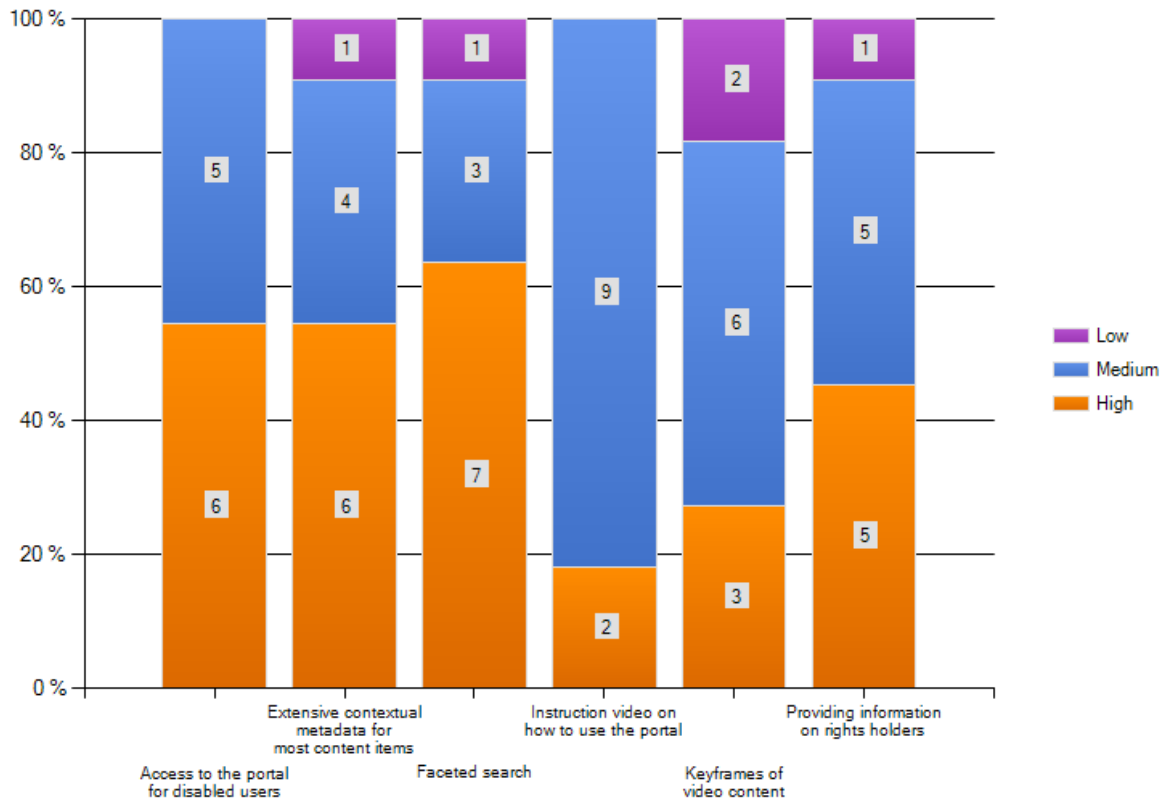


**Graph 10: Priority level of functionalities that can the ECLAP portal can offer to its users according to partners**

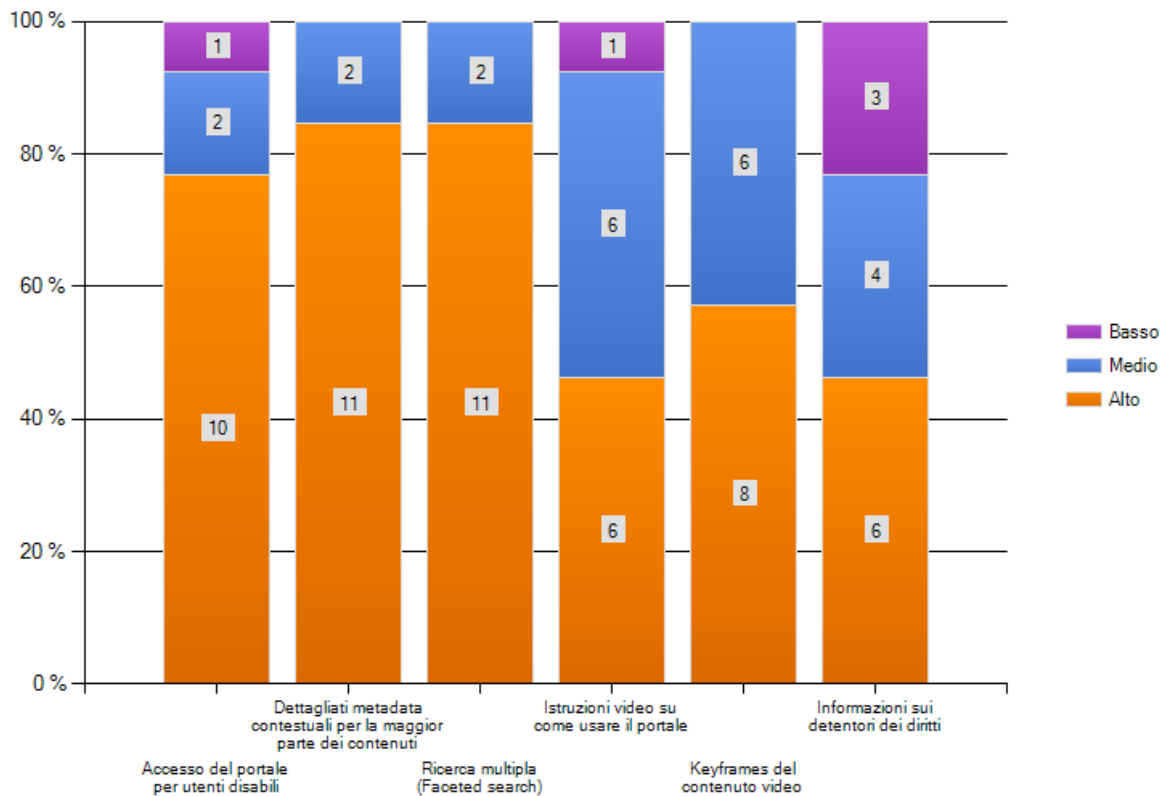
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From the graph it becomes clear that more than 80% of ECLAP partners feel that access to the portal for disabled users, extensive contextual metadata, faceted search, keyframes of video content, and information on rights holders are the most important requirements for the ECLAP portal. The only element that had a lower priority level is providing an instruction video on how to use the portal.

These results are mirrored in the other surveys although the non-ECLAP partners do deem an instruction video important. This discrepancy can be explained by the priorities of the survey participants. The ECLAP partners think the instruction video is less important at this moment in the project, since this video should not be produced immediately, but will be made when the portal is out of its beta phase. The other participants will want access to an instruction video when the ECLAP portal is launched immediately, and have not taken into account that this will happen at a later moment.



**Graph 11: Priority level of functionalities that can the ECLAP portal can offer to its users according to English survey participants**



**Graph 12: Priority level of functionalities that can the ECLAP portal can offer to its users according to Italian survey participants**

Besides these pre-selected categories, participants were asked what other actions or functionalities they felt are important in Q21 of the partner survey and Q18 of the Italian and English survey. The suggestions that were given are:

- Multilingual taxonomy (4)
- Virtual tutor for students (2)
- An overview of digital objects that are related to each other (3)
- Text instructions on how to use the portal (3)
- Artist bibliographies (2)
- List of performing arts events (2)
- Links to other performing arts portals (2)
- Recommendations for digital objects of interest to you (2)
- Thumbnails for video content (1)
- Virtual editing machine (1)

The importance of the requirements according to the survey participants has been taken into account when developing the use cases and user requirements in this deliverable. Some requirements are quite complex and do not have a high priority level according to the ECLAP consortium. Those requirements that have not been incorporated in the use cases and user requirements will however be taken into account for the future development.

## 10.6 Questions on community aspects

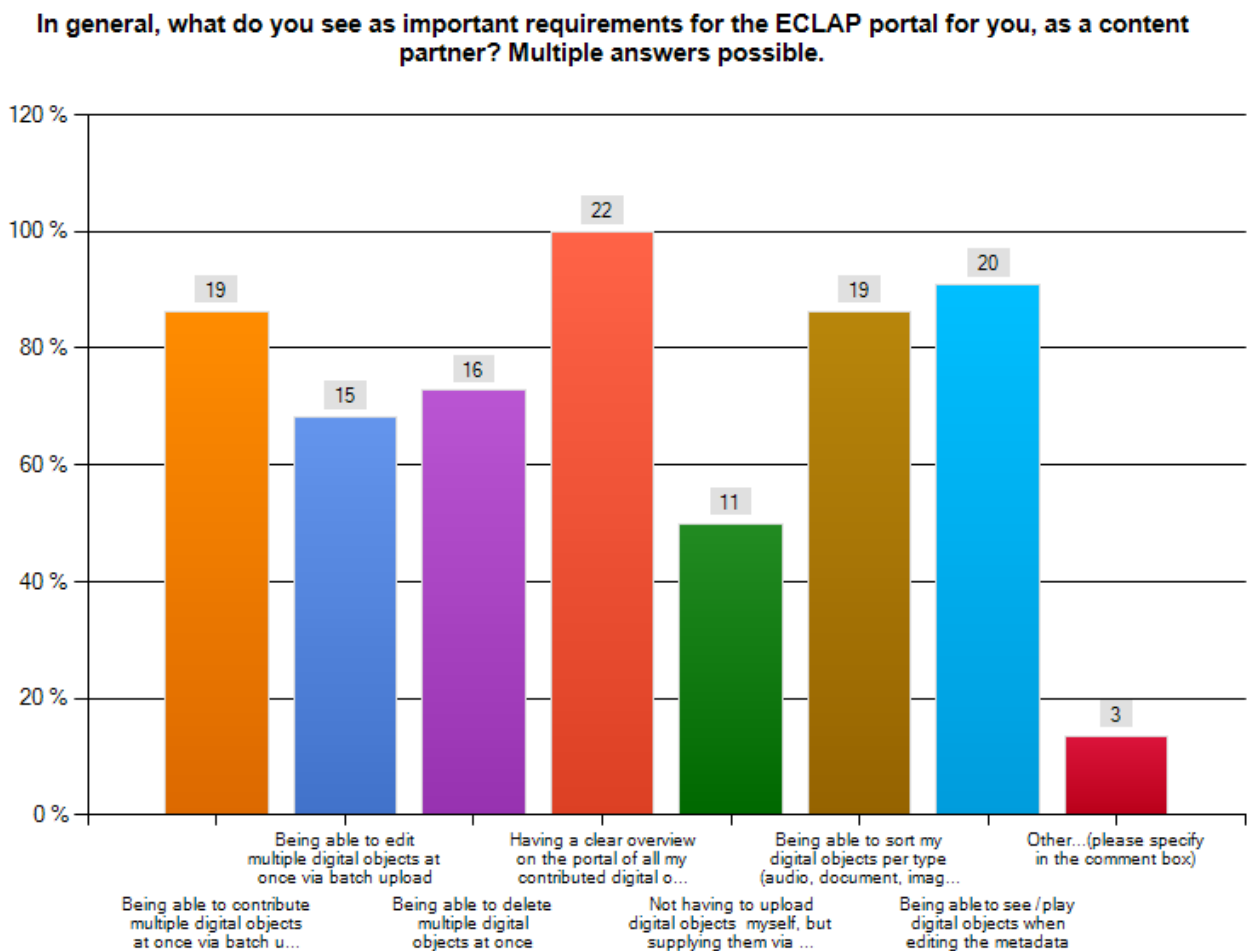
Non-ECLAP members were asked: “Do you want to be able to create a personal profile on a performing arts portal such as ECLAP?”(Q19). Two English survey participants are not interested in doing so, one person might be interested and the other eight definitely want to create a personal profile. One person noted that he

does not want to create yet another profile, but log in with an OpenID<sup>32</sup>. Of the 14 Italian survey participants, 14 are interested in creating a profile and three are not. The preference for using an OpenID was again mentioned by one person.

Non-ECLAP members were asked: “Would you like to be part of an online community of people sharing the same interests/expertise with you on a performing arts portal such as ECLAP? Why (not)?” (Q20). Most of the respondents of the Italian survey (10 out of 14) stated that they want to be part of an ECLAP community. One reason given is that exchanging study and searching strategies can be very useful in their problem. Two people that are not interested in being part of a community would rather work on an individual basis and want to know what kind of people are part of the community before participating. Out of the 11 English survey respondents, only one user was not interested. The reasons for taking part in a community are similar to those of the Italian users.

## 10.7 Questions on the back-end

Q24-Q43 about providing content and metadata were posed to serve as input for the start of WP3: ECLAP Infrastructure and Interoperability and WP4: Content Provision and Augmentation, which will start in project month four. However, some requirements for the back-end could already be extracted from these answers, most notably from Q33 in which partners were asked “In general, what do you see as important requirements for the ECLAP portal for you, as a content partner?”



**Graph 13: Important requirements for content providers**

<sup>32</sup> <http://openid.net/>. An OpenID is an open standard which allows user to login to websites by using one of their existing logins, for instance from Yahoo!, Google, or Facebook.

All requirements except supplying digital objects via a connector are considered important by more than two thirds of the content partners. Other important back-end functionalities mentioned in the ‘Other’ category are:

- Being able to search/sort/organise content based on a variety of parameters (technical and metadata elements).
- A clear instruction manual.

These results been taken into account when developing the back-end requirements.

## 10.8 Questions on identifying case studies

The survey participants were asked to indicate which websites and portals they use for accessing performing arts content (Q16 partner survey; Q11-13 Italian and English survey). 19 ECLAP partners, 9 Italian survey respondents and all 11 English survey respondents answered these questions.

Most English survey respondents (10) and Italian survey respondents (6) only use performing arts websites sometimes (several times a month or less).

The survey participants gave a wide variety of websites they have used. We have split out the answers in two lists:

- The first list of answers is related to websites specifically aimed at those interested in performing arts and listed in order of importance as indicated by the survey respondents.
- The second list contains websites that are more general and (also) contain non-performing arts content. These websites are also listed in order of importance as indicated by the survey respondents.

### **Performing arts websites**

1- GloPAD Global Performing Arts Database

<http://www.glopad.org/pi/en>

2- Archivio Storico Cinecittà Luce

<http://www.archivioluce.com>

3- The New York Public Library for the Performing Arts

<http://www.nypl.org/research/lpa/>

4- IMDB InternetMovieDataBase

<http://www.imdb.com>

5- ARCHIVE CTA Uniroma1

<http://w3.uniroma1.it/cta/video/video.htm>

6- CANADA ARTS

<http://canadaartsconnect.com/2010/08/09/canadian-arts-jobs-from-around-the-web-mon-aug-9-2010/>

7- SIBMAS

<http://www.sibmas.org>

8- AHDS Performing Arts Collections

<http://www.ahds.ac.uk/performingarts/collections/index.htm>

9- DRAMMATURGIA

<http://www.drammaturgia.it>

10- Ostereiche Filmmuseum in Wien

<http://www.filmmuseum.at>

11 - Ateatro

<http://www.trax.it/olivieropdp/mostrarticoli.asp>

12 – ODIN THEATRE ARCHIVES

<http://www.youtube.com/user/odinteatretarchives>

13- Europa Film Treasures

<http://www.europafilmtreasures.eu>

14- Sipario

<http://www.sipario.it>

15- BIBLIOTECA E MUSEO TEATRALE DEL BURCARDO

<http://www.burcardo.org/digitale.html>

16- Portale delle Biblioteche - Università di Bologna

<http://www.biblioteche.unibo.it/>

17- Ials - DanzaInVideo

<http://www.ials.org/>

18- Polish Grotowski Institut

<http://www.grotowski-institute.art.pl>

19- Archivio Multimediale degli Attori Italiani

<http://www.actores.it>

20- ARCHIVIO DAM, TEATRO LA SCALA, MILANO

[http://www.archiviolascala.org/dam\\_archivio\\_digitale\\_teatro.html](http://www.archiviolascala.org/dam_archivio_digitale_teatro.html)

21- ARCHIVIO STORICO PICCOLO DI MILANO

<http://archivio.piccoloteatro.org/eurolab>

22-ARCHIVE ACT !

<http://www.riccioneteatro.it/act/index.php>

23- ARCHIVE OF PERFORMANCES OF GREEK AND ROMAN DRAMA APGRD, University of Oxford.

<http://www.apgrd.ox.ac.uk/about.htm>

24- ASAC ARCHIVIO STORICO LA BIENNALE DI VENEZIA

<http://www.labiennale.org/en/Home.html>

25- BRISTOL THEATRE COLLECTION

<http://www.bristol.ac.uk/theatreollection/>

and LIVE ART ARCHIVES.

[http://www.bristol.ac.uk/theatreollection/liveart/liveart\\_DPA.html](http://www.bristol.ac.uk/theatreollection/liveart/liveart_DPA.html)

26- BRITISH GROTOWSKI PROJECT OF THE UNIVERSITY OF KENT

<http://www.britishgrotowski.co.uk>

27- CLASSICAL TV

<http://www.classicaltv.com>

28- E-THEATRE

<http://www.e-theatre.it/>

29- INAMEDIAPRO, online archive of France's INA

Institut National de l'Audiovisuel

<http://www.inamediapro.fr/index.jsp?lang=en>

30- MIT MEDIA LAB

<http://www.media.mit.edu/>

Part of the past MIT researches is on the Shakespeare Electronic Archive

<http://shea.mit.edu/shakespeare/htdocs/main/index.htm>

31- MUVIDEOBIZ

<http://www.muvideo.biz>

32- OPERABASE

<http://www.operabase.com>

33- PERFORMINGMEDIA

<http://www.performingmedia.org>

34- TAM TEATROMUSICA

<http://www.tamteatromusica.it/archivio.htm>

35- TEATRO COMUNALE DI PORDENONE

<http://www.comunalegiuseppeverdi.it/spip.php?page=video>

36- TEATRO LA FENICE DIGITAL SIPARIO

[http://www.digitalsipario.it/home\\_eng.htm](http://www.digitalsipario.it/home_eng.htm)

37- THEATRON theatre history in Europe and THEATRON 3 - Educational undertakings in Second Life, King's College in London

<http://www.theatron.org/info.html>

and

<http://www.english.heacademy.ac.uk/explore/projects/archive/technology/tech23.php>

38- VIDEOTECA OCCHI DEL TEATRO

<http://www.progettoamazzone.it/teatro/videoteca/videoteca.aspx>

39- Teatro e Storia

<http://www.teatroestoria.it>

40- Lincoln Center for the Performing Arts

<http://new.lincolncenter.org/live/>

### **General websites**

1- YouTube

[www.youtube.com](http://www.youtube.com)

2- Internet Archive

[www.archive.org](http://www.archive.org)

4- JSTOR

<http://www.jstor.org>

5- Sistema bibliotecario di Ateneo - Università di Trento

<http://portale.unitn.it/biblioteca/>

6- Google Books

<http://books.google.com> and <http://books.google.it/books>

7- TECHE RAI IL TEATRO IN TV

<http://www.teche.rai.it/storia/teatro/index.html>

8- ARROW, Accessible Registries of Rights Information and Orphan Works towards Europeana

<http://www.arrow-net.eu>

9- ARTE TV

[http://videos.arte.tv/fr/videos/chaines/arts\\_cultures\\_spectacles/index-3188640.html#/tv/videowall///1/50/](http://videos.arte.tv/fr/videos/chaines/arts_cultures_spectacles/index-3188640.html#/tv/videowall///1/50/)

10- CHANNEL 4

<http://www.channel4.com/programmes/4od>

11- CTHEORY

<http://ctheorymultimedia.cornell.edu/>

12- DIGITAL ARCHIVE OF ART FROM BOSTON COLLEGE

[http://www.bc.edu/bc\\_org/avp/cas/fnart/art/](http://www.bc.edu/bc_org/avp/cas/fnart/art/)

Art Links on the World Wide Web

[http://www.bc.edu/bc\\_org/avp/cas/fnart/Artweb\\_frames.html](http://www.bc.edu/bc_org/avp/cas/fnart/Artweb_frames.html)

13- EUROPEANACONNECT

<http://www.europeanconnect.eu>

14- EUROPEAN FILM GATEWAY

<http://www.europeanfilmgateway.eu>

15- EUROPEAN TELEVISION HISTORY NETWORK - ETHN

<http://cms.let.uu.nl/ethn>

16- EUscreen

<http://www.euscreen.eu>

17- GALLICA2

<http://gallica.bnf.fr/>

18- THE BRITISH LIBRARY

<http://www.bl.uk/>

19- VIDEOACTIVE Creating access to Europe's Television Heritage

<http://videoactive.wordpress.com>

The websites that the survey participants use have served as input for identifying the case studies, together with the results of the expert interviews and desk research. The list of case studies can be found in section 12 Annex III – Case studies.

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These first survey results have shaped our strategy of starting the ECLAP portal development from basic requirements. Later on we will add and release additional features. The development of more in-depth target user surveys has been added to the roadmap, and we will work with performing arts target users throughout Europe, with the cooperation of potential partners such as the International Federation for Theatre Research (IFTR)<sup>33</sup> and the International Association of Libraries and Museums of the Performing Arts (SIBMAS)<sup>34</sup>.

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<sup>33</sup> <https://www.firt-iftr.org/>

<sup>34</sup> <https://www.sibmas.org/English/sibmas.html>



## 11 Annex II – Interviews with experts

Interviews were held by UNIROMA with seven performing arts professors who work at various Italian universities in order to gather input on what they consider to be the most relevant use cases and requirements. The interviewed professors are:

- Professors Paola Quarenghi and Antonella Ottai - associate professors of Theatre and Performing Arts at the University of Rome.
- Professors Luca Ruzza and Guido di Palma - researchers, aggregate professors of Theatre and Performing Arts at the University of Rome.
- Professor Vito di Bernardi - associate professor of Theatre and Performing Arts at the university of Siena.
- Professor Fabrizio Deriu - researcher, aggregate professor of Theatre and Performing Arts at the university of Teramo.
- Professor Daniele Vianello - researcher, aggregate professor of Theatre and Performing Arts at the University of Cosenza.

This group is representative of different Italian cultural realities: four people work at major Italian universities, one at an old famous Tuscan university, two at new and small universities in the south of Italy located in the countryside. The number of University professors to be interviewed has to be enlarged including experts from different countries. The interviews have now served as qualitative input for writing this deliverable.

The professors were asked the following questions:

Q1. Do you use web portal(s) for your research and teaching?

A1: All seven professors are using internet portals for teaching and researching.

Q2: If yes, which portal is the most useful portal for your research and which portal is the most useful for teaching?

A2: All seven professors stated that even though it is quite small, the Global Performing Arts Database (GloPAD), even if small, is the most interesting portal they have explored so far. Five professors also use The International Bibliography of Theatre and Dance for research, although they do consider it to be expensive.

Q3: How would you rank the order of importance of the following content types that a performing arts portal can provide?

- A) Texts: Original, primary documents such as manuscripts.
- B) Texts: Writings on performing arts topics (essays, articles, books).
- C) Images: For instance photographs of artists and performances.
- D) Video and audio of important performances and events

A3: All professors ranked the gave the following order of importance to performance-related items:

- D) Video and audio of important performances and events
- C) Images: For instance photographs of artists and performances.
- B) Texts: Writings on performing arts topics (essays, articles, books).
- A) Texts: Original, primary documents such as manuscripts.

Q4. In which ways would you like to be able to browse through the digital objects on a performing arts portal:

- A) Thematic, monographic elements (people records; records of famous performances etc.).
- B) Acting styles and periods
- C) Encyclopaedic taxonomy
- D) Tree structures
- E) Other namely...

A4.

- Five out of seven professors are most interested in thematic, monographic content (people records; records of famous performances etc.).
- One professor is most interested browsing by historical period.
- One professor is most interested in encyclopaedic taxonomies and tree structures for browsing.

Q5. In order of importance, which of the following requirements do you consider the most important for a portal:

- A) user friendly, clear browsing.
- B) complete information on the chosen subject.
- C) possibility to link to other portals

A5: All professors listed these requirements in the following order of:

- Firstly a portal should be A) user friendly, and easily browseable.
- Secondly, a portal should C) provide opportunities to link to other portals.
- Thirdly, a portal should provide a B) complete range of information on the chosen subject;

The interviews were quite informal and held with a small group of experts. Still, the results show that performing arts portals are used by professors (Q1), but that here there is a need for larger and free performing arts portals (Q2). The experts indicated that they are most interested in (audio)visual materials (Q3). The reason for this is not that these digital object types are the most relevant for study, but that they already have ample access to texts. The experts have a diverse preference for browsing through the digital objects on a performing arts portal like ECLAP (Q4). This is due to their respective research interests. Q5 was posed in order to analyse the attitude of somewhat older scholars towards an online performing arts portal, who are typically less media savvy than younger users. The professors found it most important for a portal to be very user friendly and accessible. The possibility of linking to content on other portals was of slightly less importance to them. Even though it would be wonderful if a performing arts portal provides a great range of digital objects, the professors indicated that the first two requirements are of greater importance.

The group of experts will be expanded for the further development of the ECLAP portal, in order to gather more quantitative data from a greater variety of experts from multiple countries. The development of a structured interview guide has also been put on the roadmap.

## 12 Annex III – Case studies

Although ECLAP will develop its own requirements, look and feel, vocabulary and taxonomy, five websites have been identified through the surveys, expert interviews and desk research<sup>35</sup> which can provide inspiration on how to do so. These are state-of-the-art websites which offer access to cultural heritage online, and which have been developed by top heritage institutions around the globe. Many survey participants also mentioned YouTube as an important source of performing arts content, and therefore YouTube has also been chosen as a case study.

The case studies are:

1. Digital Gallery of the New York Public Library for the Performing Arts.
2. Global Performing Arts Database (GloPAD).
3. The International Bibliography of Theatre and Dance.
4. Operabase: Owned by: private company.
5. The Smithsonian.
6. YouTube. Owned by: Google.

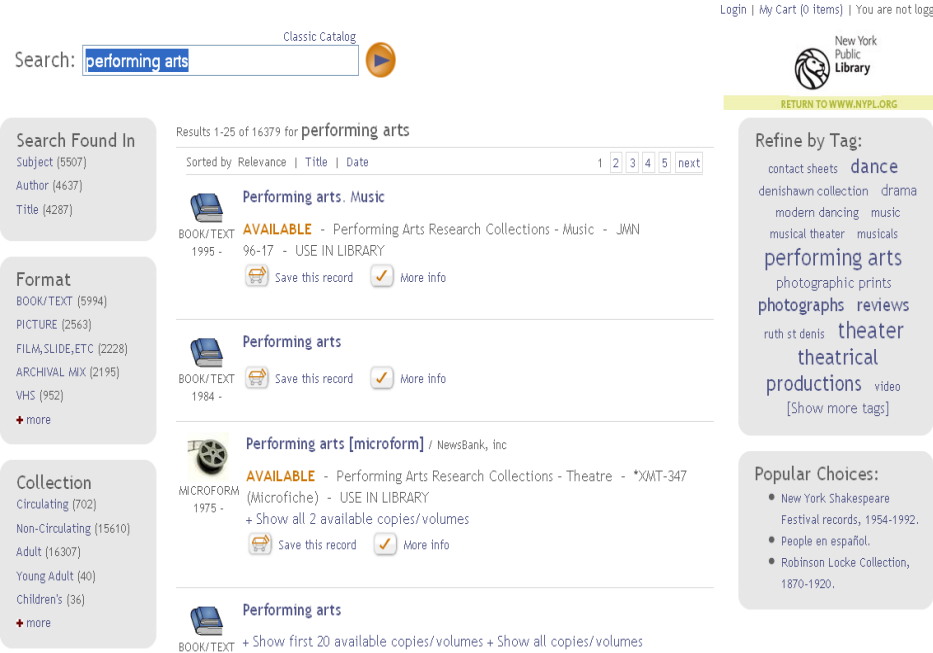
For each case study the following parameters have been investigated:

- Content: the types of content available on the website.
- Languages: the languages in which the portal (metadata, static text) is available.
- Critical mass: the number of digital objects available on the website.
- Search / browse: the ways in which the digital objects on the website can be located.
- User interface and access: qualification of the non-functional requirements of the user interface of the website, plus information on the accessibility of the digital objects.

### 12.1 Digital Gallery of the New York Public Library for the Performing Arts

1. NAME	The New York Public Library for the Performing Arts - Digital Gallery <a href="http://www.nypl.org/locations/lpa">http://www.nypl.org/locations/lpa</a>
2. OWNER	The New York Public Library (NYPL)
3. CONTENT	Extensive combination of circulating, reference, and archival collections in its field; the collection contains books, articles, promotional materials, performance recordings and many more content types.
4. LANGUAGES	English.
5. CRITICAL MASS	The general collections of the NYPL include more than 14 million books, 400 <u>databases</u> , 30,000 <u>e-book, music, and video items</u> , 66,000 linear feet of <u>manuscripts</u> , and much more. The NYPL Digital Gallery provides free and open access to over 700,000 images digitized, including illuminated manuscripts, historical maps, vintage posters, rare prints, photographs and more.
6. SEARCH/BROWSE	<ul style="list-style-type: none"> <li>• By subject : the alphabetical list of over 65,000 subject terms includes people, institutions, places and topics from Library of Congress Subject Headings and the LC Thesaurus for Graphic Materials.</li> <li>• By name: the alphabetical list of 16,862 names includes artists, authors, publishers, collectors and others responsible for the creation of items found on this site. The list includes primary (artist, photographer, etc.) and additional (printer, dedicatee, etc.) names.</li> <li>• By Library collection.</li> <li>• By personalised browse and search filters.</li> </ul>

<sup>35</sup> The main references used are: Borelli 2004; Brown 2006; Grindley 2007.

	<ul style="list-style-type: none"> <li>• By folksonomy.</li> <li>• By popular content.</li> <li>• By Arts and Literature: a series of 38 monographs are suggested and alphabetically listed, ranging from « 500 years of Italian Dancing » to « Yiddish Theatre Placards ».</li> </ul>
<p>7. USER INTERFACE / ACCESS</p>	<p>Friendly user interface, faceted browsing. Access to all metadata, login or on-site access of most materials.</p>  <p><b>Figure 9: NYPL interface</b></p>

## 12.2 GloPAD

1. NAME	Global Performing Arts Database (GloPAD) <a href="http://www.glopad.org/pi/en">http://www.glopad.org/pi/en</a>
2. OWNER	GLOPAC: Global Performing Arts Consortium. Cornell University, Institute of Museum and Library Services
3. CONTENT	The Global Performing Arts Database is an online, multilingual database project for materials and information on performing arts worldwide. The GloPAD project works with contributors from around the world. (Detailed, multilingual descriptions of) digital images, texts, video clips, sound recordings, and complex media objects related to the performing arts around the world, plus information about related pieces, productions, performers, and creators.
4. LANGUAGE	Chinese, English, French, German, Japanese, Russian (static text, taxonomy terms)
5. CRITICAL MASS	4,500 digital objects.
6. SEARCH/BROWSE	<p>GloPAD search categories:</p> <ul style="list-style-type: none"> <li>• Piece Records: Title of the show or performance</li> <li>• Person Records : Name of the author</li> <li>• Production Records: Overview of the production details of a performance</li> <li>• Locations: Country or city were the show was held</li> <li>• Objects and Activities: Objects used in performances</li> </ul>

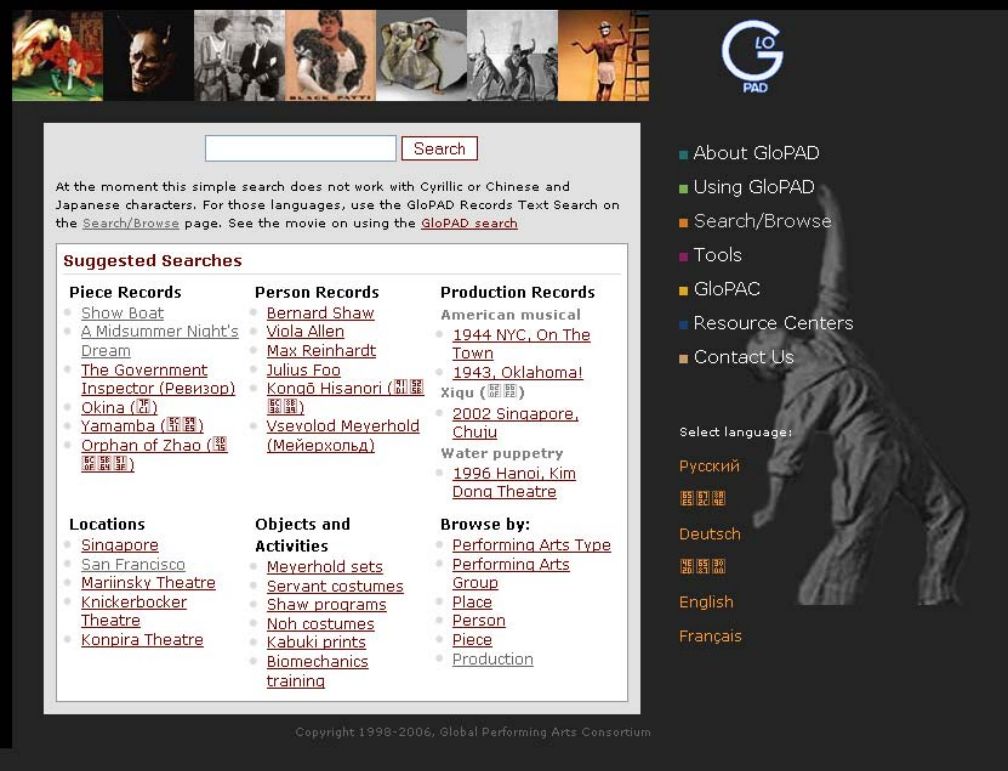
	<p>GloPAD browse categories:</p> <ul style="list-style-type: none"> <li>• <a href="#">Performing Arts Type</a> (52 elements): Genre</li> <li>• <a href="#">Performing Arts Group</a> (60 elements): Company of performing artists</li> <li>• <a href="#">Place</a> (199 elements): Location where a performance took place or where an art form originated</li> <li>• <a href="#">Person</a> (1303 elements): An entity primarily responsible for making the content of a digital object</li> <li>• <a href="#">Piece</a> (537 elements): The name or title of a performing arts production</li> <li>• <a href="#">Production</a> (626 elements): Record of a specific date that a piece was performed</li> </ul> <p>GloPAD also offers various advanced search options.</p> <p>A metadata schema for performing arts materials was developed for GloPAD, in which Dublin Core elements were incorporated. More specialised visual arts schemas such as Visual Resources Association Core 3.0, the Getty Categories for Describing Works of Art, and the Art Museum Image Consortium Data Specification were used as well</p>
<p>7. USER INTERFACE / ACCESS</p>	<p>Friendly user interface, very basic. Open access to content / metadata.</p>  <p>The screenshot shows the GloPAD website interface. At the top, there is a search bar with a 'Search' button. Below the search bar, a message states: 'At the moment this simple search does not work with Cyrillic or Chinese and Japanese characters. For those languages, use the GloPAD Records Text Search on the <a href="#">Search/Browse</a> page. See the movie on using the <a href="#">GloPAD search</a>'.</p> <p>The main content area is titled 'Suggested Searches' and is divided into three columns:</p> <ul style="list-style-type: none"> <li><b>Piece Records:</b> <a href="#">Show Boat</a>, <a href="#">A Midsummer Night's Dream</a>, <a href="#">The Government Inspector (Ревизор)</a>, <a href="#">Okina (おきな)</a>, <a href="#">Yamamba (山姥)</a>, <a href="#">Orphan of Zhao (趙孤)</a></li> <li><b>Person Records:</b> <a href="#">Bernard Shaw</a>, <a href="#">Viola Allen</a>, <a href="#">Max Reinhardt</a>, <a href="#">Julius Foa</a>, <a href="#">Konqō Hisanori (轟 寛)</a>, <a href="#">Vsevolod Meyerhold (Мейерхольд)</a></li> <li><b>Production Records:</b> American musical, <a href="#">1944 NYC, On The Town</a>, <a href="#">1943, Oklahoma!</a>, <a href="#">Xiqu (京剧)</a>, <a href="#">2002 Singapore, Chuiu</a>, Water puppetry, <a href="#">1996 Hanoi, Kim Dong Theatre</a></li> <li><b>Locations:</b> <a href="#">Singapore</a>, <a href="#">San Francisco</a>, <a href="#">Mariinsky Theatre</a>, <a href="#">Knickerbocker Theatre</a>, <a href="#">Konpira Theatre</a></li> <li><b>Objects and Activities:</b> <a href="#">Meyerhold sets</a>, <a href="#">Servant costumes</a>, <a href="#">Shaw programs</a>, <a href="#">Noh costumes</a>, <a href="#">Kabuki prints</a>, <a href="#">Biomechanics training</a></li> <li><b>Browse by:</b> <a href="#">Performing Arts Type</a>, <a href="#">Performing Arts Group</a>, <a href="#">Place</a>, <a href="#">Person</a>, <a href="#">Piece</a>, <a href="#">Production</a></li> </ul> <p>On the right side, there is a navigation menu with links: About GloPAD, Using GloPAD, Search/Browse, Tools, GloPAC, Resource Centers, Contact Us. Below the menu is a 'Select language:' section with options: Русский, Deutsch, English, Français.</p> <p>At the bottom of the page, there is a copyright notice: 'Copyright 1998-2006, Global Performing Arts Consortium'.</p>

Figure 10: GloPAD interface


### 12.3 The International Bibliography of Theatre and Dance

<p>1. NAME</p>	<p>The International Bibliography of Theatre and Dance <a href="http://www.lib.ku.edu/infogateway/index.cfm?rtype=db&amp;page=fullrecord&amp;rid=2047">http://www.lib.ku.edu/infogateway/index.cfm?rtype=db&amp;page=fullrecord&amp;rid=2047</a></p>
<p>2. OWNER</p>	<p>The University of Kansas</p>
<p>3. CONTENT</p>	<p>The International Bibliography of Theatre and Dance is a comprehensive multicultural and inter-disciplinary research tool available to theatre students, educators and professionals. Initiated by the American Society for Theatre Research, IBT is now a component to EBSCO's list of subject-specific secondary databases covering the humanities. Since 1984, the Theatre Research Data Center (TRDC)</p>

	directed by Benito Ortolani at Brooklyn College has published 14 volumes of the IBT. International Bibliography of Theatre and Dance with Full Text contains all of the content available in International Bibliography of Theatre, as well as full text for journals such as Canadian Theatre Review, Dance Chronicle, Dance Teacher, Modern Drama, PAJ: A Journal of Performance and Art, and many more.
4. LANGUAGES	Only English
5. CRITICAL MASS	The 14 volumes comprise a fully indexed, cross-referenced and annotated databank of over 60,000 journal articles, books, book articles and dissertation abstracts on all aspects of theatre and performance in 126 countries. Additional full text available includes more than 50 books & monographs.
6. SEARCH/BROWSE	By Subject: Under Art & Humanities are the following sub-categories: * Architecture and Urban Design * Art and Art History * Arts and Humanities (general) * Classics * Design * Film * Museum Studies * Music and Dance * Philosophy * Religious Studies * Theatre * Western Civilization * All Arts and Humanities
7. USER INTERFACE / ACCESS	Restricted Use. Access to electronic resources at the University of Kansas is restricted to employees, students, or other individuals authorized by the University or its affiliates.  (No screenshot due to restricted access)

## 12.4 OPERABASE

1. NAME	Operabase <a href="http://www.operabase.com">http://www.operabase.com</a>
2. OWNER	A private company. Contact details are: Muriel Denzler E-mail: <a href="mailto:muriel.denzler@operabase.com">muriel.denzler@operabase.com</a> Phone: +41 32 846 26 12 Fax: +41 32 846 37 87 And Mike Gibb E-mail: <a href="mailto:mike.gibb@operabase.com">mike.gibb@operabase.com</a> Phone: +44 (20) 85 79 39 10
3. CONTENT	Operabase has documented operatic activity worldwide since 1996, with over 245,000 performances on file. The database contains the details of over 30,000 opera performances 2009, 200 festivals, 35,000 artists (search the Operabase schedules for a specified artist, and follow links to performance details, repertoire, biographies, pictures), a list of artist managers for contact and roster details, 670 opera houses and festivals. The majority of Operabase's information is provided free of charge. The public area

	<p>contains access to the current and announced future seasons of each opera house.</p> <p>Professionals tools for opera houses, artists and their managers are provided through Operabase Professional.</p> <p>Powerful tools are provided to access the data in flexible ways:</p> <ul style="list-style-type: none"> <li>• rich cross linking allows quick access to related artist, performance, and season info</li> <li>• geographic information is used to create mouse-sensitive maps and listings of performances in neighbouring cities</li> <li>• loose name matching means artist names can be recognised even when spelled incorrectly</li> <li>• multilingual vocabularies support searches for place names and opera titles in different languages.</li> </ul>
<p>4. LANGUAGES</p>	<p>17 languages, checked by a translator (static text, some metadata schema elements)</p>
<p>5. CRITICAL MASS</p>	<p>It records the work of artists in over 600 theatres, and publishes season information to opera-goers in 17 languages.</p>
<p>6. SEARCH/BROWSE</p>	<p>The public site allows the user to search/browse through 34,000 opera performances, artists, managers and companies.</p> <p>The Opera Professional site has extra functionalities, such as searching/browsing through a casting tool, 250,000 opera performances, and 1,600 productions for rent and sales.</p>
<p>7. USER INTERFACE / ACCESS</p>	<p>Simple interface. Browsing via maps, some timelines. Two separate interfaces: the Public Site, free and Opera Professional, restricted, with a subscription fee of 750 euro per year.</p>  <p><b>Figure 11: Operabase public site interface</b></p>



## 12.5 Smithsonian

1. NAME	Smithsonian Collections Search Center <a href="http://collections.si.edu/search/">http://collections.si.edu/search/</a>
2. OWNER	The Smithsonian Institution
3. CONTENT	<p>Via the Collections Search Center the user has access to various (educational) materials related to art, music, theatre, and culture.</p> <ul style="list-style-type: none"> <li>- American Orff-Schulwerk Association A professional organization of music and movement educators dedicated to the creative teaching approach developed by Carl Orff and Gunild Keetman.</li> <li>- ArtsEdge An education program offering free, standards-based teaching materials for use in and out of the classroom, as well as professional development resources, student materials, and guidelines for arts-based instruction and assessment.</li> <li>- College Music Society A consortium of college, conservatory, university, and independent musicians and scholars interested in all disciplines of music. Its mission is to promote music teaching and learning, musical creativity and expression, research and dialogue, and diversity and interdisciplinary interaction.</li> <li>- International Society for Music Education An organization with members in over 60 countries that promotes music education worldwide.</li> <li>- Kindermusik The world's leading publisher of music and movement curricula for parents and their children, from newborn children to 7 years olds.</li> <li>- National Association for Music Education Music educators working for the education of America's children.</li> <li>- Organization of American Kodály Educators A national organization whose mission is to enrich the quality of life of the people of the USA through music education by promoting the philosophy of Zoltán Kodály.</li> <li>- Smithsonian Center for Folklife and Cultural Heritage A research and educational unit of the Smithsonian Institution promoting the understanding and continuity of diverse, contemporary grassroots cultures in the United States and around the world.</li> <li>- Smithsonian Folkways. It provides ideas and resources for educators to inspire their use of Folkways music from around the world. Information about these sounds and the cultures that create them are a valuable resource to courses in history, geography, language arts, social studies, visual arts-and of course music and dance.</li> </ul>
4. LANGUAGES	English.
5. CRITICAL MASS	Via the Collections Search Center the user can search over 5.4 million records with 460,000 images, video and sound files, electronic journals and other resources from the Smithsonian's museums, archives & libraries. The portal is connected with the following collections that contain performing arts:



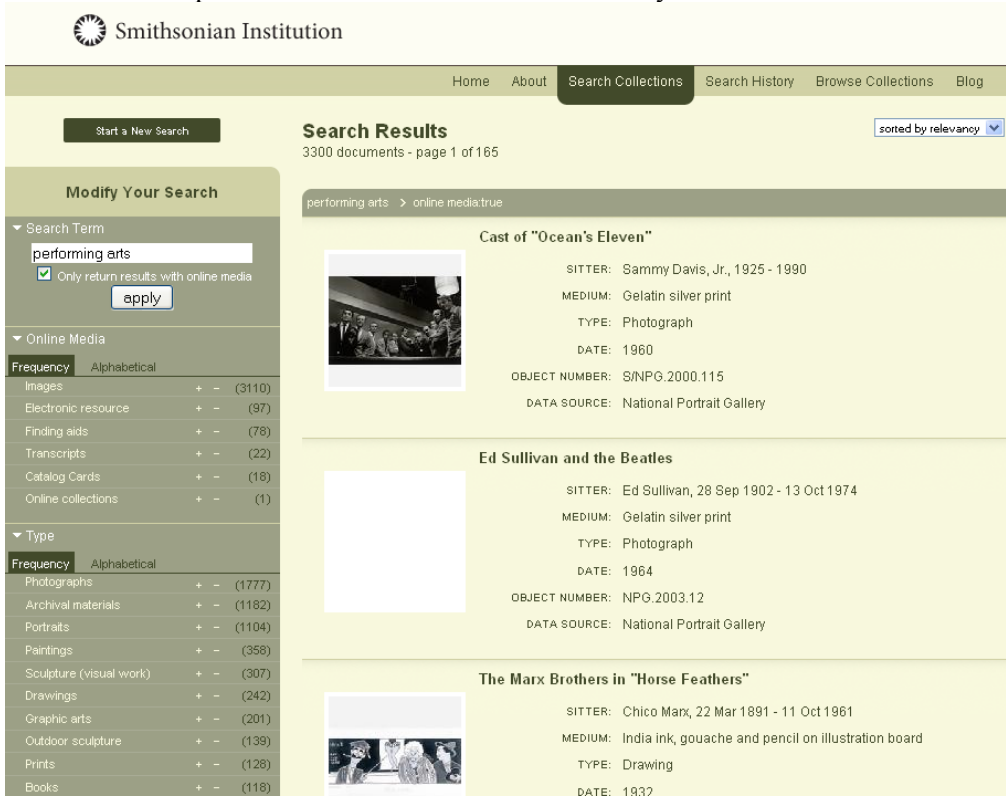
	<ul style="list-style-type: none"> <li>• African Art Museum</li> <li>• American Art Museum and its Renwick Gallery</li> <li>• American History Museum</li> <li>• Art Inventories</li> <li>• Center for Folklife and Cultural Heritage</li> <li>• Cooper-Hewitt, National Design Museum</li> <li>• Hirshhorn Museum and Sculpture Garden (modern and contemporary art)</li> <li>• Natural History Museum</li> <li>• National Portrait Gallery</li> <li>• Smithsonian Institution Archives</li> </ul>
6. SEARCH/BROWSE	The Collections Search Center offers various faceted search categories (e.g. Types, Topics, Collection, Culture, Name Place). The user can select whether he wants to only search or browse for objects that are digitally available online. The user can easily access his search history.
7. USER INTERFACE / ACCESS	<p>Access to the database is free, and many digital objects are accessible online. The Smithsonian website offers free features such as curricular experience, activities, streaming videos, liner notes, music samples, and other features are available for free. A fee is requested to download some files or to buy CDs.</p>  <p>The screenshot shows the Smithsonian Institution search results page. The search term is 'performing arts'. The results are sorted by relevancy and show 3300 documents on page 1 of 165. The left-hand side features a 'Modify Your Search' section with facets for Search Term, Online Media, and Type. The main content area displays three search results, each with a thumbnail image and detailed metadata including the sitter, medium, type, date, object number, and data source.</p>

Figure 12: Smithsonian search interface (with facets on the left-hand side)

12.6 YouTube

1. NAME	YouTube <a href="http://www.youtube.com">www.youtube.com</a>
2. OWNER	Google
3. CONTENT	<p>Funded in February 2005 YouTube is considered the most famous online video community.</p> <p>Features, beside the Video Editor to edit and publish videos on YouTube.:</p> <ul style="list-style-type: none"> <li>• Caption Editor: add captions and subtitles to your YouTube videos with interactive</li> </ul>

	<p>caption editor.</p> <ul style="list-style-type: none"> <li>• Annotations: users can add annotations to specific parts of a video</li> <li>• Comment Search: discover videos by searching video comments.</li> <li>• Insights for Audience: discover what different audiences like doing on YouTube.</li> <li>• HTML5 Video: try an experimental version of the YouTube HTML5 video player.</li> <li>• YouTube Music Discovery: make playlists and discover new artists and music videos.</li> <li>• Feather: view YouTube videos on a super-low latency page.</li> </ul>
4. LANGUAGES	29 languages (static text).
5. CRITICAL MASS	<p>24 hours of content is added to YouTube every minute. (YouTube fact sheet)</p> <p>The search query «theatre» generates almost 800,000 results</p> <p>The search query «performing arts» generates almost 600,000 results,</p> <p>The search queries « music » and « film » generate millions of results.</p>
6. SEARCH/BROWSE	<p>The user can search with keywords or options that are divided in six groups:</p> <p>1- Type: All   Videos   Channels   Playlists</p> <p>2-Sort by: Relevance   Upload date   View count   Rating</p> <p>3-Upload date: Anytime   Today   This week   This month</p> <p>4-Categories: All   Music   Entertainment   Comedy</p> <p>5-Duration: All   Short (~4 minutes)   Long (20~ minutes)</p> <p>6-Features: All   Closed captions   HD (high definition)   Partner videos   Rental   WebM</p> <p>Browsing categories are:</p> <ul style="list-style-type: none"> <li>• Cars &amp; Vehicles</li> <li>• Comedy</li> <li>• Education</li> <li>• Entertainment</li> <li>• Film &amp; Animation</li> <li>• Gaming</li> <li>• How to &amp; Style</li> <li>• News &amp; Politics</li> <li>• Non-profits &amp; Activism</li> <li>• People &amp; Blogs</li> <li>• Pets &amp; Animals</li> <li>• Science &amp; Technology</li> <li>• Sport</li> <li>• Travel &amp; Event</li> </ul> <p>Other browsing options are:</p> <ul style="list-style-type: none"> <li>- Most viewed today.</li> <li>- Related search recommendation.</li> </ul>
7. USER INTERFACE / ACCESS	Friendly user interface, thumbnails of videos in the search results, related videos are shown next to the video that is currently playing.



Figure 13: YouTube interface

## 13 Annex IV – Requirements meeting

On 8 September 2010, a requirements meeting was held at the premises of the Centro Teatro Ateneo (Uniroma) in Rome in order to discuss the first draft of this deliverable. The aim of the meeting was to brainstorm about the following topics:

- Expand and refine the use cases and requirements obtained through the other methodologies (described in section 3 Methodology),
- Give the right relevance to each use case and requirement in terms of quality, expiry, etc.
- Focusing on what final end users, groups, categories are involved in each of them
- Highlight missing aspects from both technical and content point of view
- Make a first definition and framework for the most complex issues at hand, namely multilinguality, contextualisation and enrichment, and the ECLAP back-end were the main topics that were addressed.

### 13.1 Minutes requirements meeting

8 September 2010, Rome, Centro Teatro Ateneo.

The meeting opens at 9:40 am.

- absent: as result of Airfrance strike: UCLM: Amparo Écija
- present:

Lotte	Baltussen	B&G
Jaap	Blom	B&G
Johan	Oomen	B&G
Pierfrancesco	Bellini	DSI
Nicola	Mitolo	DSI
Paolo	Nesi	DSI
Michela	Paolucci	DSI
Emanuele	Bellini	FRD
Nasos	Drosopoulos	NTUA
Maria	Berlangieri	UNIROMA
Maia	Borelli	UNIROMA
Alessandra	Felli	UNIROMA
Marco	Maciariello	UNIROMA
Ferruccio	Marotti	UNIROMA
Desire	Sabatini	UNIROMA
Raffaella	Santucci	UNIROMA
Irene	Scaturro	UNIROMA
Erik	Lint	UVA

08:45 – 09:40

Coffee and welcome

09:40 – 11:00

DE2.1.1 (version discussed is v0.3.1 UNIROMA\_LBB)

Lotte (chair) is introducing the agenda, goals for the day.

Recap of the agreed work process and work done until now.

“What needs to be done on DE2.1.1”

- Make distinctions between the various potential users (target users, categories of users).
- Rank the importance of the user requirements according to the results of the survey.
- Rank the most important use cases and requirements

- Discuss and divide specific tasks, discussing the DE2.1.1 draft per section.

Paolo: a general remark: do not use the term User Group (refer to DoW), user groups are the groups that will be set up by FRD in WP2.3, and are the users that will review, test and validate the results of ECLAP. It is better to use the term target users or user categories. It's important for the reviewers of the EU. Try to avoid misunderstanding, be precise and clarify & describe keyterms in the documents.

ACTION POINTS: Emanuele needs to change this in the DE2.1.1 text, Lotte will add the correct terms to the glossary of DE2.1.1

#### Section on the Description of user group

(p.21 of the draft, change title in target users).

Lotte: The document is still under construction and the structure & readability has to be improved.

Paolo: There's no need to add new macro-categories. Education, lovers, professionals might be enough.

Erik: for this deliverable these categories are clear although we should consider adding performing art professionals in category c. Give the artists a status in the categories. Cluster producing/content owners and cultural heritage institutions. Make a clear distinction between tourism professionals and performing arts professionals; they have different use and goals. Cluster Delivering, uploading & Archiving in c. Clusters and separate the re-use in a: education & research (lotte) and b: performing art lovers, tourism, secondary users. It's also a clearer distinction for the IPR issues (for example: only available for educational use). In the clustering we could discuss how to incorporate events, how to deal with events of the past and upcoming events of new productions, which might be of special interest for tourism/marketing. Business case.

Lotte: I think it is enough to add goals to the Performing Arts professionals category that indicate what separates them from the other in the macro category Professionals working in cultural heritage, tourism, multimedia.

Emanuele: I will change the 'Education' category into 'Education and research', add specific goals for Performing Arts professionals.

#### Section on the Description of use cases (p. 26 of the draft)

Paolo: Use the target users and PC and mobile as preconditions. Do not interpret the answers of the survey by 14 respondents as decisive.

Lotte: I agree. On the other hand at this stage the number of survey responses is reasonable. Also, we have more responses than this, with 22 responses from the ECLAP partners, and 30 from external target users.

Erik: Make sure that the surveys are presented as qualitative reception research instead of quantitative research.

Paolo: But we have to be sure on the basis of a critical mass. In some case 40 years of experience of Ferruccio has more relevance than a small number of answers in a survey.

Lotte: Do you agree with some general scenarios?

Paolo: A subset of categories might not be necessary. You'll make yourself vulnerable. Better to remove these. Identify the main issues, analyze and generalize.

Erik: I see 3 major scenarios:

1 the end users using the portal/interface for general interest/leisure, just browsing, exploring, searching.

2 users who wants to search for specific reasons and tasks, annotate, collaborate for Education/research

3 users responsible for uploading/enriching content.

Paolo: I suggest to start from the general overview of the ECLAP description of work, create a matrix and for each of the combinations we could have a different scenarios, these has to be clarified in the matrix/table.

In the major scenarios we have to refer to the use case relevant for each scenario. This will help to identify main scenarios and system requirements. Therefore I suggest moving table of p. 32 at the beginning of use cases. And don't forget to analyze the scenarios for special devices and specific functionalities (mobile phones, Pc, etc).

Lotte: This afternoon we'll work on specific use cases

## *DE2.1.1 – User Requirements and Use Cases*

### *Best Practice Network*

Paolo: It's good to be very specific and to go through use cases/ functionalities (what is typical) then on scenarios/ situations (describing who you are, where and when, the general). It will be clearer for the technical partners.

Johan: We need to clarify vocabulary to all agree on before the afternoon session.  
Decision: create a matrix with a smaller set of sub categories; sketch scenarios for different devices, clarify the vocabulary (see results of this last remark).

#### Section on the User requirements (p.31)

Lotte: The text on the survey will be moved from here to annex.

Irene: Do you need to be more fine-grained in this DEL or in the next DEL, now or later on the afternoon discussion?

Paolo: The structure is ok, the terminology has to be changed. Requirements at the end are necessary for technical partners. In some cases they need to be decomposed in smaller features. Some statements are too wide and ask for multiple programming actions. For ex. 7.1.1.1 table (at p.34) gives too many actions in one.

Irene: we could go on analyzing what is already good and what it is not good in the filled tables and have a little meeting with the technical partners that work on the programming itself.

Erik: We need a clear methodology on extracting the requirements and ranking them. For ex. Disabled access in this document is over-exposed because of its high priority level in 4 boxes. This is the result of the way the question was posed in the survey. We have to analyze and rank them again along the lines of functionality, impact and the planning, timeline.

Paolo: The list on p. 31 has to be split in more clear statements, marking what it is. Some parts are rather cryptic. For example: 'commenting on metadata, viewing reports of use, making favorite playlist (sharing yes / no), linking material. Think in roles and behaviour in areas like: metadata, annotation, uploading and maintenance, tagging, references.

Erik: The DSI team should be more involved in this chapter and the complete DEL in filling the gaps in understanding and by adding the glue between the parts. Lotte and Uniroma will be able to start while DSI can help to make things clear. We'll have to create a time schedule later this day.

Paolo: Agrees and offers DSI support.

Johan: Is it right that NTUA will start to collect the metadata schemes of the libraries, content owners and their metadata from the 1st October? This is relevant for this DEL and passing in it through NTUA.  
Nasos and Paolo: yes.

Decision / ACTION POINTS: B&G and Uniroma will revise this version of DE2.1.1 and DSI will help. NTUA can assist if it concerns the metadata. A strong focus is needed, starting from the analysis of the survey, our expertise, the matrix, scenarios and roles, leading to a precise and clear representation of the functional design..

11:30 – 12:00

Coffee break

12:00 – 13:00

Continuation of the first half of the morning: Discussing terminology and a continuation of talking about the DE2.1.1 draft per section.

#### Metadata

Paolo: Please read the manual to learn terminology. At p. 33, first row, what do they mean with "their own tag"? a free folksonomy?

Johan: It's a point of enrichment. But are we allowing additions to our metadata schemas? Can users expand our taxonomy?

Paolo: We will be moving our metadata content to an RDF model (more than 3 side relation's ontology, not only father-child taxonomy), as Europeana is doing. (EDM, Europeana Data Model will be the model, more than FRBR)

Johan: Are you hosting the content or will it be a bridge to Europeana?

Nasos: It'll be RDF and tested in SESAME. We'll move from a taxonomy tree to RDF creating semantic relations in a more complex graphic model.

## *DE2.1.1 – User Requirements and Use Cases Best Practice Network*

Johan: We, at B&G, already worked on a deliverable for the EDM description in EUscreen. We can benefit from this expertise.

What followed was a general discussion on having users add their own free tags, and key terms from the ECLAP taxonomy as well. Also, the free tags can be stored and queried by users, just as the keywords and descriptions added to the digital objects by the content partners.

### Embedding

Paolo: I don't agree with the use of term "embedding". Embedding is like a battery in a cell phone. You mean linking?

Lotte: No, No, the term embedding means something very different to many internet users.

Johan: Yes, even on the level of the creative commons, it is well described, as the right to copy&paste the </embed> code and publish/embed a link or an object elsewhere.

Paolo: disagree, we have to continue clarifying our terminology.

### Continuation of the requirements discussion

Paolo: Be careful not to use only one source/quote from the survey and take this opinion for granted. Collect several arguments that point in the same direction. Use expressions like: we browsed other portals, we studied, we made surveys, and this document reports our opinions based on years of experience. Our conclusions and decisions lead us to these requirements.

Nasos: We could add columns indicating the priority level of the requirements according to the ECLAP consortium members.

Lotte: Ok, we will add one column giving an explanation of what it is feasible for us and why.

ACTION POINT: Uniroma will change the column that contains the priority level to the priority indicated by the consortium. Also, B&G will gather all the results from the survey in an annex, and will report on the indicated priority level of requirements as stated by the survey participants from the target groups for each relevant question there.

#### 7.1.1.1 Search/browse filters (p. 35)

Paolo: If I understand it correctly: the main requirement is the possibility to search with filters depending on metadata.

We should insert two functionalities:

1- User search with filters depending on metadata

2- The first basic filters are: (please put in all the major examples, such as Dublin core)

So you can take away this list and only refer to existing metadata fields provided by the partners. And make explicit why you need new filters. Create an example. Focus on flexibility: the system has to cope with

Nasos: NTUA will provide the examples and proposed model.

Paolo: Present video as a macro structure that can be filtered. There's no need specify this now.

General discussion on the proposed basic filters on p. 35, which were considered a good start, but lacking in specificity. In the end, it was decided to use this list for further development in WP3 and WP4

#### 7.1.1.2 Multilingual search (p. 36)

Paolo: Content owners are able to change the automatic translations. There is a budget for translations reserved.

Johan: We need a procedure and activity list for the validation of metadata translations.

Erik: It is known that artists and researchers in the domain of the humanities are very sensitive to errors in translation. It is preferable that items such titles are not automatically translated. Or give the content owner the right to express permission statements (by selecting/deselecting a checker box). To be continued in the afternoon session.

13:30 – 14:15 Lunch

14:15 – 15:00

Discussion restarts from multilingual search, content enrichment and back-end functionalities.

*DE2.1.1 – User Requirements and Use Cases  
Best Practice Network*

Lotte: four main areas have been identified, which need to be defined and worked out into use cases and user requirements. The meeting will be split into four groups of topics; in each we will discuss and come up with (classifications of) use cases and requirements related to a specific area.

Brainstorm sessions

Rules of the group brainstorm sessions are:

- Make minutes
- Write down the most important issues for each group theme
- Afterwards: plenary presentation of your group's findings

Here are topics of the 4 groups:

1- Contextualisation / enrichment. What do we mean with this term, and what does it entail for ECLAP?

See also definitions:

- Target users (not user groups)
  - User scenario step by step overview of the actions the target user can perform in a certain condition (library, pc, mobiles) More task role
  - Use case: a segment of a user scenario focusing only on the step taken by the user for a specific functionality.
  - User role: the privileges a user can have on the portal.
- 2- Multilinguality. Automatic translations of the pages and metadata / descriptions.
- 3-Tools and services: What are the most important tools that we want to offer to the ECLAP end-users?
- 4: Back-end.
- Batch uploads.
  - Metadata mapping and processing (Erik suggests to discuss his proposal for implementing an equivalent of the Cultural Identification number, the Dutch ISBN for performing arts, here to be called as Performance ID, Nasos confirms that an ID for an [event] will become important in the near future and thus for Europeana.
  - Implementing a bug tracking system.

Even though there already is an extensive back-end, it needs to be identified what the most pressing issues are that need to be fixed in order for the front end to work as smoothly as possible. Also, it needs to be established how batch uploads for partners are going to work.

After a short discussion the groups are combined: 1 and 3 in one group and 2 and 4 the second group.

Group Contextualisation / enrichment and Tools and services

Group 1-3 is composed by 8 participants: F Marotti, R Santucci, I Scaturro, P Nesi, L Belice Baltussen, M Paolucci, E Lint. The minutes are made by Raffaella. On Contextualisation: have a look to the state of the art.

Lotte: mapping of various performing arts vocabularies is a form of enrichment.

Raffaella Santucci suggests taking a look at the Mellon project, for GloPAD (global performing art database, <http://www.glopad.org/pi/en/>). It is an old one that is now being revised (Cornell University), see also Victoria and Albert Museum (<http://collections.vam.ac.uk/>) and ShowBar dance archive.

Lotte: Indicate which are the requirements that we want as the core of the portal.

Raffaella: First we need to clarify the terminology we use in relation to the use on other EU and USA projects.

Paolo: One of the functionalities needed is the ability to write comments on offered content.

Lotte: Also, you can allow users to add references to content (such as Wikipedia articles, articles on JSTOR, and so on), which should ideally be separated from more informal comments.

Erik: I would like to mention examples of a user automatic generated content enrichment:

1- to create your own library maps: you prepare a monograph/collection/thematic folder, for example “cross cultural performance” containing a library (list of items – books, video, pdf, etc.) that could be re-used and commented on by different users. See [www.worldcat.org](http://www.worldcat.org).



2- the power of the crowd in [www.slideshare.com](http://www.slideshare.com). Tagging each other's PowerPoint presentations, a search button for scanning all the PowerPoint slides in the database.

Irene: we will distinguish among different authors of monographs, i.e. content partners' and general users' monographs.

Paolo: Each group could create a number of web pages, each partner has one channel to use, in which to put its own monographs.

Comment Lotte added afterwards: It seems to me we need to think on how to distinguish playlists from what we have now called monographs. The way we think of a monograph here is almost like a collection, or a bibliography on a certain topic, but in effect, the idea of a playlist as it is now used in ECLAP is very much related to this, in the sense that people are also asked to add metadata from the taxonomy and a description. I like the idea of partners being able to create pages around certain topics, more curated than a playlist. This is something of interest for a later development stage.

Erik: Worldcat uses a free folksonomy side by side with the key terms taken from academic libraries (mashup/api). Worldcat uses taxonomy AND semantic web principles. Its might be more efficient than implementing the taxonomy of the Dutch Theatre Library with 1500 key terms. It seems worthwhile to use wordcat.org as a source for inspiration. It also relates to Amazon, and in Amazon I can find which other titles were bought and seen by me and other users. It shows relation on the level of research topics or special fields of interest. I'd like to enrich my own research in a kind of automatic searching using/mashing the major info sources, as Wikipedia, BBC, Europeana, Amazon, etc.

Paolo: We can dispose not only of one axe, but also of multiple axes. We now only need to express in the DEL what we have done now, not the future.

Use also mashups and "active query" (users – in the survey – are asking to receive by mail info's, useful for updating my topics in some automatic ways). Cross annotation is something different.

Erik: Could we have some kind of virtual knowledge items? Like using the collection of literature of my own university library in ECLAP's MyFolder.

Paolo: If we do not get the object (pdf, video, etc) we cannot arrange it for downloading. It is not very good to have many metadata items if we do not have the objects for downloading.

Erik: I understand but I just want to show you how we are using these tools in academic research. The documents are available but in another way. Downloadable but not directly from ECLAP. ECLAP then functions as a curator guide/portal.

Raffaella: yes, indeed: see JStor for example.

Lotte: we would better discuss this in next DEL, but I consider this to be an important added value.

Erik: I will evaluate and report on these developments at the end of the year after my course.

Lotte: Let's go to IPR Wizard (p. 39)

Title will be changed in IPR (without Wizard) because at this stage we only need to specify which information are we going to give, not how it is going to work, since the IPR Wizard will be developed mainly in WP6.2 by DSI.

#### Plenary presentation of the results of the group brainstorm sessions

Paolo presented and summarised the discussion of topics 1 and 3 (Group Contextualisation / enrichment and Tools and services

Some thoughts for the system requirements DEL are listed here:

1. Tagging content by end-users which results in a folksonomy
2. Collecting comments (dividing comments coming from free users and from content providers, classified experts), taxonomy notes and associations
3. Automatic enrichment/active query, looking for similar info on external search engines, extracting from major 3 party portals (Amazon, European, etc.) (to be developed later on)
4. Create a way to collect elements of the same sort. We'd call it monographs. This collection could be even promoted inside a portal channel, creating subpages, curated topics, categories that are also indexed. (to be developed later on)

5. Then we briefly mention IPR, annotations and MyStory Player. How these annotations will be created will be much clearer once the first version is ready. We will keep the topic of annotations and IPR basic in the DEL, and look at MyStory Player later.
6. Multiple audiovisual annotation formsn (keyframes/tab on timeline): text, comment, links, smart filtering.

Question by Johan: Is mobile access already possible with ECLAP portal?

Paolo: Yes, but we need to move the taxonomy in order to have full access for mobile iPhone (play even without downloading) and PDA's. The same will be created for iPad (The ECLAP app is under construction).

Johan: Is it possible to express (in the system and as a content partner) that you do not want your content to be downloaded? Ask the content providers what do they want to do with their content. Consider IPR limitations. Is it something we'll do at some point?

Paolo: Yes, of course, we'll start working on the WP-IPR soon.

Erik: We could differentiate and clarify the use of it by indicating and offering different use case possibilities, like educational (free of rights), semi-commercial (limited), commercial (forbidden). We should be able to differentiate between complete, limited, restricted access to the content.

Paolo: Yes, putting different characteristics to users in the moment of registration could give us information on the use they are allowed to perform (rights to download or not).

#### Group Multilinguality and Back-end

Johan and Nasos present and summarize discussion of topics 2 and 4 (Multilinguality and Back-end), explaining the tools already available in other projects:

1. Infrastructure tool for mapping: NTUA shows a schema to directly import data used for several aggregator projects supporting Europeana (EUScreen, etc.). You need an XML file containing metadata. XSLT standard of translation between different schemas.
2. Enrichment tool. We need metadata management environment, choosing between NTUA and DSI tool. Points discussed were:

- a. search for query.

- b. problematic translations of titles. European search example: you put "window" keyword in English and you extract also when "window" is in the title but in another language, without the automatic translation of the title in English.

Paolo: this is already available in the ECLAP portal.

- c. Discussion on this subject – two different strategies: ECLAP – Europeana.

Nasos and Lotte: Validation of all metadata will not be feasible.

Johan: The question is whether it's better to search through the languages behind the scenes, or not. I think so. Presenting the automatic translation is another thing. You should make explicit that the translation is not validated. Complete validation of all the objects is simply not possible.

Paolo: we said in the DoW that a good number will be validated. The rest (of translations) will not be pushed on Europeana. We have to find a compromise and I agree with Johan we have to indicate explicitly where the translation is automatic and when is validated. Addition to the action list: what will this compromise look like, what are the consequences for the workload for each item that's uploaded? What's the most efficient way for the use and presentation of automatic translations?

16:20 – 16:35

Coffee break

16:40 – 17:00

#### Further discussion on contextualisation

*DE2.1.1 – User Requirements and Use Cases  
Best Practice Network*

Erik shows the way he researches, prepares his seminars and how he works with the students on certain performing arts topics like intermediality. He shows Worldcat.org and i-theatre.net. He calls this method ConTopics/pictorial essays (contextualizing topics: reseaching and mind mapping / linking research resources like articles and books, writing essays). Storing and sharing them in personal worldcat folders – for example a folder intermediality - and nested folders with keyterms – for example hypermediacy, immediacy). Students can embed links to these resources in a visually expressive way (see essay on Orbis Pictus Theatrum Mundi ([http://www.theatrummundi.com/index.php/call\\_for\\_papers/english/](http://www.theatrummundi.com/index.php/call_for_papers/english/))). Text and images/references/footnotes are presented side-by-side in the same window.

Erik would like to offer the students the tools (in drupal) to be able to write online essays about ‘the making of’ of a production. During their internship students can upload and describe documents in ECLAP and use these as quotations in their pictorial essay on the rehearsal process of a performance.

In this way ECLAP could become a kind of living and dynamic portal, because these essays could be validated and published on ECLAP, while on the other hand, theatre professionals are using the portal for professional archiving.

So the left side of the page is the central essay (to be created by the author/student/academic - with the wiki suggests Paolo) with footnotes, and at the right you see the descriptions/references to other documents in the portal or other documents available elsewhere. Should we divide this in internally validated content documents and externally hyperlinked docs?

Paolo: we could think of this for textual docs, creating monographs, and see what is the possibilities are to use it with other media.

Erik’s addition in these minutes: an amazing example of the power of text annotation can be found in Vincent van Gogh’s archive: <http://vangoghletters.org>.

Addition to the action list: Paolo suggests to take a closer look at these systems in order to see whether such a tool for annotation and API/mashup with Worldcat is feasible.

Division of work for the DE2.1.1:

- Specific use cases (with metrics - table): Lotte
- User requirements: Irene, Ferruccio, Maia with feedback from technological partners to write examples without creating a new column (case of “embedding”, only when is needed)
- Glossary: Lotte leading, with the help of others
- Survey, will be all together in annex: Lotte can do the restructuring with the help of Maia. Include also the state of the art on portals’ relevance made by Ferruccio (GloPAD).

Next Wednesday (15 September) will be the deadline to send a new version (restructured and consolidated) to submit to the other ECLAP partners.

17:15  
Finish\*