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Document responsible: Josefien Schuurman Email address: J.Schuurman [at] UvA.nl Affiliation acronym: UVA
Authors: • Josefien Schuurman, Peter Eversmann, (UVA) • Nicola Mitolo (AXMEDIATECH) • Paolo Nesi (DSI) • Lotte Belice Baltussen (B&G) • Maia Borelli, Irene Scaturro (UNIROMA)

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Table of Contents

1 Executive Summary and Report Scope

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 developing 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.

The overall goal of work package 6 is running solutions and optimization. Part of this aim is the research and advice on specific services. There have been identified two domains most urgent: educational services and leisure services. Work package 6.3 and 6.4 Services for Educational and Leisure Market focussed on validating and identifying user needs and corresponding relevant services. This deliverable is the outcome of research and analysis activities performed in above work packages. This report is split in two parts analogue to the two work packages and the two main target user groups. Both sections, on education and on leisure and entertainment, include the analysis performed as to the validation of th ECLAP solution for any possible exploitation of it on the educational market and application, the modelling for content and semantic information for those cases, the validation performed and the feedback reported on the general WP 3 for the improvement of the ECLAP social service portal and related tools, procedures and solutions.[1]

The aim of this deliverable is to provide the development team of ECLAP with input on services for its two main end user groups, the educational users and the leisure users. The first part of this document focuses on educational services. Practices and needs of educational users are described and analysed and ECLAP educational solutions developed in the first year are validated. To better understand the context in which this part was developed one should also read DE5.2.3. Best Practices from the Working Groups (section on education – working group A). The second part of this document describes and validates digital services for performing arts leisure users. Both parts result in recommendations for the continuous development of ECLAP with the goal to optimize the ECLAP portal for its main end users.

A number of ANNEXES have been included and are distributed as a separate documents. They include the detailed reports of the activities described, and particularly:

- ANNEX I – USABILITY TESTS carried out by B&G, UNIROMA and UvA in Sept-Nov 2011
- ANNEX II DESKTOP RESEARCH
- ANNEX III – SURVEY RESULTS – GENERAL SURVEY, developed by B&G, UNIROMA and UvA at the end of 2011.
- ANNEX IV: SURVEY RESULTS - EDUCATIONAL SURVEY, submitted in October and December 2011
- ANNEX V: EDUCATIONAL SURVEY – QUESTIONNAIRE SCRIPT, submitted in 2011
- ANNEX VI: INTERVIEW SCRIPT
- ANNEX VII: EDUCATIONAL USE STORIES
- ANNEX VIII: STATISTICAL ANALYSES OF THE ECLAP PORTAL USE in the last year (July 1st 2012 – June 26th 2013)
- ANNEX IX: MYSTORYPLAYER PRE-TESTS., performed by UvA in 2011.
- ANNEX X: Usabillity analysis of the ECLAP platform, performed in 2013.

Also a complete usability test report is available on the ECLAP portal and it is related to independent tests performed in the last months of the project by the Communication Strategies Lab of the University of Florence. The report (in Italian) is available here: http://www.eclap.eu/155829.

[1] *ECLAP Grant Agreement, Annex I, Description of Work*, p. 31.

Educational Services

The chapter on educational services is based on a combination of qualitative and quantitative analysis: a series of usability tests, a series of interviews with educators and an online survey spread throughout Europe. Aim of this approach was to get comparative data on educational use of performing arts online content and to validate these outcomes with in depth knowledge on educational practices and international trends in performing arts education. The participants of the interviews were a mix of external experts and ECLAP members. The externals were invited because they hold key positions in performing arts educational institutions and (inter)national network organisations and are all active educators themselves.
Validation activities were organized via usability tests with educators, learners and leisure users. The focus was on basic features and basic tools. The main findings are an overwhelming positive response to the content and aims of ECLAP on the one hand and on the other a critical analysis of the tools and interaction design of the website. Especially educators are critical about the applicability of ECLAP in their teaching. They all recommend communicating the benefits of the website strongly. The most important point for them was the trustworthiness of the content. Collections with clear and historically correct traceable provenance are key to their education and research activities. What will prevent them at this point from actively starting to use ECLAP itself is the complexity of the website. As a rule teachers don't have time to dive into ECLAP to find out how it works and they judge it too complex for their pupils or students to incorporate it in their courses and teaching. This makes ease of use a essential aspect of a performing arts portal.
Identification of specific practices and needs was done parallel to testing the first version of ECLAP. The main outcomes for performing arts educational conditions are:

- Diversity: The diversity within the performing arts education is perhaps one of its most distinct characteristics and leads in almost all cases to customized solutions rather than generic ones.
- Live encounters: The live experience or face-to-face tuition is central in performing scholarly and vocational education, parallel to its position in the performing arts themselves. Services for education need to be highly applicable to diverse live teaching and learning settings and teachers play a crucial role as intermediaries.
- Multiple spaces: Performing arts education can take place in a classroom, but also in a studio or in a theatre. This is a strong call for mobile applications.
- The performing arts combine multiple disciplines and professions. This innate interdisciplinarity makes it important to facilitate processes of unravelling and retracing the elements. This points to a focus on analysis and contextualization services.
- The interviewed indicate a strong need for (and heightened sensitivity for) visual quality of digital products and services.
- The need for trusted, high quality content is overwhelming. The availability of digital content is not self-evident for the intangible performing arts.

Generic concluding recommendations based on domain specific characteristics:

1) Communication
    a. Focus on the intermediaries, i.e. teachers
    b. Focus on building and communicating trust
2) Validation outcomes
    a. Separate authoritative and user generated resources
    b. Strive for simplicity and clarity as part of usability
    c. Strive for excellent basic tools and features
3) Focus on basic educational needs
    a. Provide extensive search facilities
    b. Provide ways of non-linear searching
    c. Connect to teaching and research services like bibliographic citation tools already in use
4) Acknowledge diversity of user groups and use levels through focusing on flexibility
    a. Facilitate personalization and modelling of an integrated environment
    b. Facilitate connecting to relevant external resources
5) Focus on open and connected structures
    a. Create standardized, open data

b. Create a modular user interface
c. Create an open infrastructure

Leisure and entertainment services

According to the DOW, most of the services provided by ECLAP can be adapted to provide features indicated for leisure and entertainment. In this section these services have been validated and a usability test has been performed in the last year.
Values have been recovered by analysing the usage data of ECLAP (also by using external tools like Google Analytics and ALEXA), the user behaviour by also taking into account data provided by non-registered users, and the results of the usability tests performed by an independent group of experts. Via this methodology the most used functionalities for leisure purposes have been identified.
On the basis of the results of these activities, many services and tools have been enhanced with the aim to provide to users a more satisfying experience.
Regarding the validation activity, it is interesting to notice that the M24 results highlighted that mainly the ECLAP portal was used by research/academic users for educational purposes. In the last year this changed significantly and it is evident that now ECLAP users are mainly Performing Arts professionals.
According to the analysis performed during the activities of WP6.4 related to the valorization of ECLAP services for leisure and entertainment, it emerged that some of the services provided by ECLAP could be useful for these aims. The following services of ECLAP are listed for leisure and entertainment:

- Promotion of performing arts events, like festivals and other important events that could be valorised by using innovative services like QR-codes and proximity services via GPS for mobile devices, for example for the download of related resources;
- WebTV with a TV like interface by using the *MyStoryPlayer* annotation tool, with a restyle of the user interface to simplify the user experience. MyStoryPlayer has been also selected by Europeana Pro that is promoting it[2];
- Museums and archives for cultural heritage valorisation for cultural travelling. Also in this case ECLAP services could enhance the user experience thanks to the use of services like QR-codes and GPS for mobile;
- Social Media for networking and collaboration, to stimulate the knowledge sharing among non-professional users;
- Content organizers for mobile devices (available for Androids, iPhone / iPad and Windows Phone 7), useful not only for education and e-learning, but also for entertainment thanks to the possibility for users to access and download resources from the portal directly in their devices, for on-line and off-line access to the content.
- Social Graph is the second ECLAP tool that has been promoted by Europeana[3]. It allows users to see, explore and browse the relationships among the content and other types of resource created on the ECLAP platform.

As a final recommendation to promote these kinds of services for leisure and entertainment, a simplification in the usability of some of the ECLAP services will be necessary, a part of this work has been already performed in the last period. In the next work these possibilities will be investigated with the help of all partners to better understand possible evolution in some ECLAP services.

[2] http://pro.europeana.eu/web/guest/thoughtlab/enriching-metadata#MyStoryPlayer
[3] http://pro.europeana.eu/web/guest/thoughtlab/new-ways-of-searching-and-browsing#SocialGraph

2 Specific services for Education

The direction of the research process for this report was set by certain preconditions. These preconditions frame the possible educational services ECLAP can implement and sustain.

- ECLAP doesn't have financial or human resources for educational staff like educationally specialized web editors
- There are no earmarked financial resources for continuous development of ECLAP's ICT for educational services
- ECLAP doesn't have an educational content board or educational program committee

They frame the directions of the ECLAP educational services twofold: a focus on facilitating educational use and activities without the intervention of educational staff on the one hand and on the other hand focus is on sharing and networking services connected to an infrastructural level exploring the needs and conditions for enabling third party engagement via flexible interface design and re-usable data.

This chapter presents the main responsibility of workpackage 6.3 analyzing and advising on the educational deployability of ECLAP. This has been done via, a, validation of achieved results and, b, via the structured analysis of end user needs to identify additional educational services.

2.1 Introduction to this chapter

2.1.1 Methodology

The work performed for the educational section of this report has been focused strongly on end users. End users have been involved via different methods to validate current results and to share their ideas and needs on digital library educational services. Educational services are part of a context of an immense theoretical and technical field formed by the overlap of education and ICT. From this context a few of the most relevant aspects are explored in the desk research. For more research on this topic and state of the art and best practice identification, please read ECLAP deliverable 5.2.3 *Best Practices for performing arts education*.[4]

This chapter deals with the methodology and definition of the activities supporting this report. After an introduction on educational services and educational user groups the two main tracks, validation and identification, are described in the following order.

- Validation (paragraph 3.2)
  - First series of usability tests
  - General, evaluating questionnaire
- Identification (paragraph 3.3)
  - Desktop research
  - Use stories
  - Interviews with performing arts education experts
  - Educational questionnaire

Validation of educational use

The main task of workpackage 6.3 is validation of achieved results relevant to educational user groups. This has been done within the framework of a larger effort within the workpackages 2 - Continuous requirements and scenarios analysis and 6.1-Early validation and service optimization. As planned in WP 6.1 a combined approach with qualitative assessments via usability tests and more quantitative assessments via a questionnaire was chosen. The different activities were presented to the consortium and in close cooperation

[4] See ECLAP for deliverable 5.2.3. http://www.eclap.eu/136384.

between the involved partners performed under the coordination of Beeld en Geluid. The collected results are incorporated in the annexes of this document and integrated in DE2.1.2. *(Revised) User Requirements and Use Cases*.

The complete validation activities are:

- Usability tests with students in higher education (University of Rome)
- Usability tests with teachers-researchers in higher education (University of Amsterdam)
- Usability tests with leisure users (Beeld en Geluid)
- General questionnaire assessing the current features and outlook of ECLAP (Beeld en Geluid).
- Survey about ECLAP pros and cons (Feb 2013) promoted to all ECLAP partners
- Usability tests performed by the Communication stratyegies Lab of the University of Florence, Department of Political and Social Sciences (DSPS)

Identification of educational use

To complement validation efforts we have adopted a fourfold strategy to identify current information technology practices and needs in the educational field dealing with the performing arts. First of all we have done desktop research in order to identify some main topics concerning e-learning, e-teaching and the use of e-collections in tertiary education in general and -if possible- in performing arts education in particular.

Secondly parallel to the desk research, activities were employed to get access to data on the educational user groups via the ECLAP consortium itself. Knowledge and notions on these groups are available throughout the partner institutions. To make these notions explicit and turn this knowledge into use for ECLAP we created a series of use stories. The stories are written in a free style and are mainly aimed at giving insight in the multiple diversity we are dealing with: different disciplines, different users groups, different user levels, let alone the diversity in nationalities, languages and digital literacy. The stories should materialize knowledge and notions within the consortium. They serve as a ‘mirror’ of the field – much like in the theatre stage characters may be used to analyse types of persons in particular societal circumstances. They were presented and discussed at the internal consortium meeting in Rome, October 2011. (**Errore. L'origine riferimento non è stata trovata.**)

Departing from these inputs -desktop research and user stories- we have then formulated two further strategies for acquiring data on the actual situation in our field: in depth interviews with experts from inside as well as outside ECLAP (paragraph 3.3.2 **Errore. L'origine riferimento non è stata trovata.**) and a web-survey consisting of a questionnaire targeted at students, teachers and researchers in the field (paragraph 3.3.3 Trends in performing arts education - ECLAP educational survey). We intend both of these approaches to complement each other: the survey providing more or less ‘hard’, anonymous data while the interviews are able to provide qualitative assessments and more specific knowledge about the perspective of experts on the use of IT in our field. Together these four strategies provide an assessment of the current status and -tentatively- describe a number of trends that are most likely to shape future developments. From these emerge the qualifications for educational services that are advisable for ECLAP to become a sustainable project anchored within the community of performing arts education.

2.1.2 Defining educational services

In line with deliverable DE5.2.1 focus lies on *tertiary education* when identifying educational services. In other words: the educational practices within universities (academies, vocational schools) are the touch stone from which we will try to formulate the ‘services’ that -when they are provided by ECLAP- will entice these institutions to become regular users of the portal. These services will therefore have to:

- Align themselves in one way or another with the general educational principles of teaching and learning[5]
- Be helpful in one or more of the key processes that students in the field of the performing arts are being trained in. The following of these processes were identified[6]:
    1. describing performances
    2. analyzing performances
    3. comparing performances
    4. classifying and grouping performances
    5. contextualizing performances
    6. reconstructing performances
    7. historic research / practice
- Be able to fit in with the specific (educational) goals, aims and environment of the particular institution, course or classroom that will make use of them.

The first two of these requirements are quite general and more or less self-explanatory. However one should realize that the 'services' that are referred to here are intended to be specific for the performing arts education. The third requirement is even more specific and takes into consideration the actual environment of particular end-users. Therefore this requirement can only be addressed with regard to actual situations. Since these situations are very diverse across potential users this requirement means that a very high degree of adaptability will be necessary enabling customized solutions tailored to the specific needs and wishes of particular end-users.

Another perspective on educational 'services' is to look at ECLAP as a university library for the performing arts and ask oneself what this analogy means with regard to education/research. What are the specific educational processes that a university library supports? How does it help the community of teachers and students in their educational and research efforts? The answer to this question can be manifold but will entail at least the following two aspects:

- Preserving and storing objects (books, articles, archival material, etc.) in such a way that they can be searched, found and retrieved in an efficient manner in order to be accessed by the end-users. In short: everything that directly pertains to handling the items of the collection and making them accessible.
- Additional services of a diverse nature: saving a particular subset of items for a certain user, helping with searches, providing items from other collections (i.e.: inter library loan), providing courses on how to use the collection, newsletter, providing study rooms, providing spaces for social events (from cafeteria to exhibition spaces to lecture rooms), organizing public events (lectures, discussions, etc.), wireless internet, copy facilities, etc. In short: everything that does not directly bears upon the collection itself, but nevertheless helps users to make use of that collection within the educational context that it is embedded in.

2.1.3 Defining users

Macro Target Group Education and Research

- Students and researchers of higher education **(**focus on research / writing on performing arts)
- Teachers of higher education / university
- Performing arts student (focus on practice / becoming performing artist)
- Performing arts teachers
- Primary School teachers
- Secondary school teachers

[5] See ECLAP deliverable 5.2.1, *Best Practices from the working groups*, 4.3.32, p. 22-23.
[6] See ECLAP deliverable 5.2.1, *Best Practices from the working groups*, 4.3.3.4-7, p. 23-27.

According with this evaluation we identify university and high level schools students and teacher categories as key target users. '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. […] The Research category is joined with Education because the needs, scope and requirements are very similar.'[7] And yet another reason to target mainly (university) teachers lies in the fact that they have a key role in promoting and disseminating ECLAP; they can inform their colleagues of the existence of the portal and -even more important- it are the teachers that will act as intermediaries between ECLAP and their students.

In accordance with WP2 the focus within this macro category of users is *higher education*. To be able to identify needs and interests clearly, for this document we made a primary division between theoretical education (mainly universities) and practitioners' education (vocational schools, art schools, etc.). Specific research is hardly available on these performing arts user groups. Apart from local studies, only the AHDS has done some high level analysis on the topic.[8] Furthermore it is important to realize that -although we did targeted some of the research to actual students in the field- the main focus lies on the (university) teacher.

2.2 Validation of ECLAP (educational) solutions

The 2010 ECLAP survey identified a set of basic yet essential user requirements. They are almost all in place. The majority of the implemented tools is designed to cover needs of more than one user group, including those of many end users involved in education. The assessment of the educational deployability of ECLAP is part of the whole validation framework. Parameters for validation work were set in Work Package 6.1. This chapter will start with the integrated validation activities and will conclude with the status of educational usefulness.

Validation work can be split into two major efforts:

1. The first validation activity is a qualitative assessment of the portal via a series of usability tests
2. The second a general survey evaluating the current status on a quantitative basis

Limited time and resources provided some additional conditions for validation:

- Since ECLAP doesn't follow an agile development process, only fully developed features, tools and services are candidates for usability validation
- Most users will use or at least start with using the basic tools and services
- Centre of validation work was on front end user - use cases

From these starting points the first evaluation work was focused on the generic, basic tools and features of searching and viewing content and collecting content to one's account. The output of the validation work had been incorporated in DE2.1.2 *Revised User Requirements and Use Cases*. There a full and up to date overview of all use cases and requirements is provided, including corresponding macro functionalities, user roles and status.

Two specific services have been developed especially for ECLAP. For annotating collection resources the *My Story Player* was designed. This audio-visual annotation tool is suited for different types of media and different types of annotations. Digital resources can be compared and annotated, connected via a temporarily established timeline. Users can chose to share their annotations. The *My Story Player* is developed as an innovative analytical feature but will be adapted for all user groups. (See paragraph 4.3.2.2. **Errore. L'origine riferimento non è stata trovata.**). The second service is the implementation of the Moodle e-learning environment. It's aimed at teachers who can create courses for their students. In these courses digital heritage resources can be connected to all types of other internal and external resources. Basic Moodle

[7] ECLAP deliverable 2.1.2. *Revised user requirements and use cases*, p. 23-24.
[8] Abbott and Beer, 2006.

facilities like writing and following courses, assessing work or progress of students and online test tools are presented within the framework of all the ECLAP tools. Courses based on collections can be opened or closed. In the paragraphs 3.3 and 3.4 Trends in Performing Arts Education more is written about the status of annotation tools and e-learning facilities in the performing arts domain. In chapter 4 more information is presented on user metrics of the ECLAP portal.

2.2.1 Outcomes of the MyStoryPlayer pre-tests

Since the need for an analytical tool like *MyStoryPlayer* is strongly acknowledged by the experts in the field and as a strong asset it could certainly enhance the deployability of ECLAP within educational institutions, it was decided to do pretesting of the application.[9] Two teachers of the theatre department of the University of Amsterdam were each asked to explore the *MyStoryPlayer* and to add an annotation of their own. Their actions, the resulting reactions of the computer and their comments were recorded. The details of these two sessions can be found in **Errore. L'origine riferimento non è stata trovata.**.

The outcomes of these pre-tests confirm that the application was not ready for full-scale end user testing, but –more importantly- it also points to the fact that both respondents were enthusiastic about the underlying idea and acknowledged the potential attractiveness of *MyStoryPlayer*. Although neither of them succeeded in adding an annotation themselves and both got confused and frustrated at times this had more to do with the instability of the program at the time of the pre-test than with its general structure and underlying philosophy. The pretesting showed that especially the following aspects should be improved:

- Interactive help function
- Manual (with clear table of contents)
- Indication of what each button does
- Clear indication of connection between selected annotation line, small video and text field with further info on the annotation
- Selection of an annotation line should be more permanent (and not change when mouse is moved over other annotation lines)
- Visibility of some texts (more contrast between lettering and background)
- Less separation between the ‘view annotation’ mode and the ‘add annotation’ mode. It should be possible to add annotations when inside the view annotation mode.

2.2.2 Outcomes of the general survey for evaluation and input on new requirements

Parallel to the usability tests, ECLAP organized two surveys in October- December 2011: a general survey to collect new requirements and to test the current status of ECLAP and a survey specifically targeted at performing arts educators, to get insights in their relationship to digital heritage, to collect input on their needs and ideas about performing arts digital libraries. The first, general questionnaire was part of the validation activities. The second, educational questionnaire was part of the identification activities. Therefor in this paragraph only the condensed findings of the first survey will be presented. Detailed findings and statistical analyses of the survey outcomes are presented in **Errore. L'origine riferimento non è stata trovata.**, and the outcomes of the second survey are presented in paragraph 3.3.3 and Annex IV.

The insights resulting from the general ECLAP survey can be split into two aspects. On the one hand participants are satisfied about the amount and kind of options and actions on the ECLAP portal. Content enrichment, using and sharing options and networking, all get positive responses. Survey participants are especially satisfied with the reliability of the information on the portal and the (amount) of trusted content. On the other hand the survey respondents are rather critical about the non-functional requirements: usability

[9] http://enterface10.science.uva.nl/wiki/index.php/CoMediAnnotate:Framework:Annotation:Tools

aspects and look and feel of the website need improvement according to their feedback. Users find it quite confusing to use the website and consider it difficult to find their way.
Main strong points:

- The quantity of the content
- The uniqueness of the content
- Availability of rich metadata
- Findability of content
- Reliability of information and content
- Potentially powerful analytical tool (MyStoryPlayer)

Main weak points:

- Cluttered interface / unappealing look and feel
- No relevant clustering of content / no guidance in finding interesting content
- Quality of automatic translations is weak
- The website is hard to navigate
- The website needs more content
- Access of content behind group log in (closed content)

2.2.3 General conclusions on the validation of the ECLAP portal

The participants in the usability tests and the survey love the idea of ECLAP. It's evident that a proper portal to performing arts collections and archives crossing (language) borders is missing in Europe. They are very interested in the developments of ECLAP. Combining the feedback collected via the questionnaire and the usability tests the important conclusion can be made that users highly appreciate the provided type and provenance of the content. Users want to have access to a large amount of (audio visual) content, which is unique and enriched by institutions they trust. A second positive aspect, mentioned by participants of the questionnaire and the usability tests, is the appreciation for the amount of tools and options. Users can chose from a range of tools and actions to interact with the content. Users like the idea of a heritage content platform that not only offers a broad set of tools, but also possibilities to analyse, interact and network.

Our users have shared their criticism on certain aspects as well. There are two major things the consortium needs to work on. One is how information is presented on the website. There is a lot of (textual) information on the portal, which confuses and distracts users. Secondly an urgent aspect to improve is the complexity of some of ECLAP's tools. In all usability tests (and in the MyStoryPlayer pre-tests), participants struggled with the tools they tested, like the procedure for uploading, creating annotations or making personal collections, the tagging component being a positive exception.

ECLAP now feels like it is designed from the perspective of information and heritage managers, and we have to work on making the end user feel at home. The interaction design needs to be revised and the interface needs to be de-cluttered. Users want direct and easy access to content, information and tools useful for their specific purposes. Segmentation of the different groups needs to be more visible on the website, creating specific ECLAP environments for leisure users, different kinds of educators and heritage professionals.

Status of ECLAP's educational deployability
To conclude we will highlight some specific validation findings from the macro target group of educators. All educators are very interested in ECLAP. The idea and potential of ECLAP are welcome in a domain where there are not many domain specific digital libraries. They all recommended communicating strongly the benefits of the website. The strongest point for them was the trustworthiness of the content. Collections with clear and historically correct traceable provenance are key to their education and research.

However results reported above are referred to test performed mainly in 2011. In the last year the portal has been strongly changed in terms of details.
At the beginning of 2013 a new usability test has been performed by an independent group of experts, the Communication Strategies Lab of the Department of Political and Social Sciences (DSPS) of the University of Florence, under the scientific coordination of Prof. Luca Toschi[10].
According to the results of the tests, many improvements have been performed on the usability of the platform, as described in Sec. 3.6

2.3 Identification of educational activities and trends in the performing arts domain

Parallel to validating the current status of ECLAP, additional research has been done to identify educational needs of the ECLAP user groups. Apart from the desk research activities have been completely centred on involving end users. A combination of interviews with performing arts educators and a questionnaire spread among higher education institutions across Europe have accumulated into the identification of trends, presented in chapter 3.3.2 and 3.3.3. To complement validation efforts we have adopted a fourfold strategy to identify current information technology practices and needs in the educational field dealing with the performing arts. First of all we have done desktop research in order to identify some main topics concerning e-learning, e-teaching and the use of e-collections in tertiary education in general and -if possible- in performing arts education in particular. (Paragraph 3.3.1. **Errore. L'origine riferimento non è stata trovata.**)

Secondly parallel to the desk research, activities were employed to get access to data on the educational user groups via the ECLAP consortium itself. Knowledge and notions on these groups are available throughout the partner institutions. To make these notions explicit and turn this knowledge into use for ECLAP we created a series of use stories. The stories are written in a free style and are mainly aimed at giving insight in the multiple diversity we are dealing with: different disciplines, different users groups, different user levels, let alone the diversity in nationalities, languages and digital literacy. The stories should materialize knowledge and notions within the consortium. They serve as a 'mirror' of the field – much like in the theatre stage characters may be used to analyse types of persons in particular societal circumstances. They were presented and discussed at the internal consortium meeting in Rome, October 2011. (**Errore. L'origine riferimento non è stata trovata.**)

Departing from these inputs -desktop research and user stories- we have then formulated two further strategies for acquiring data on the actual situation in our field: in depth interviews with experts from inside as well as outside ECLAP (paragraph 3.3.2 **Errore. L'origine riferimento non è stata trovata.**) and a web-survey consisting of a questionnaire targeted at students, teachers and researchers in the field (paragraph 3.3.3 Trends in performing arts education - ECLAP educational survey). We intend both of these approaches to complement each other: the survey providing more or less 'hard', anonymous data while the interviews are able to provide qualitative assessments and more specific knowledge about the perspective of experts on the use of IT in our field. Together these four strategies provide an assessment of the current status and -tentatively- describe a number of trends that are most likely to shape future developments. From these emerge the qualifications for educational services that are advisable for ECLAP to become a sustainable project anchored within the community of performing arts education.

2.3.1 Desktop Research

The ECLAP consortium is working in a broad context of arts, heritage, education and technique. The first activity of researching this context was a preliminary investigation into relevant topics via desk research. There is almost no general literature on performing arts education making use of IT. However, there are some particular articles and instruction manuals that pertain to specific uses of computers or computer

[10] http://www.csl.unifi.it/en/

programmes in courses and classrooms. This is especially the case for performing arts education that uses computers for simulating (parts of) the creative processes involved (lighting, stage design, blocking, etc.), for particular subjects (history of theatre architecture with *Theatron*; cross cultural theatre analysis with teleconferencing, e-learning about Shakespeare, etc.) or for guided instruction in particular skills (learning to play a musical instrument, management of cultural organisations, etc.). Because of its specific nature tailored to particular courses and subjects this literature is too limited for identifying educational topics for ECLAP.

What is needed is

1. a more general approach about the use of information technology, libraries and e-collections in (tertiary) education and
2. conceptual models of how to integrate computers in the classroom.

For the former one can fall back on research that has been done at academic libraries in the US: in 2003 the university librarian at Yale University, Susan Gibbons, headed a series of ethnographic studies at the University of Rochester aimed at charting how graduate students and faculty use the library and their need for helpful IT tools. More recently (2008-2011) The ERIAL (Ethnographic Research in Illinois Academic Libraries) project (executed by a consortium consisting of Illinois Wesleyan, DePaul University, and North-eastern Illinois University, and the University of Illinois's Chicago and Springfield campuses) conducted a series of anthropological studies of undergraduates providing data on how students, librarians and professors use the library and on how they subjectively think of each other. The results of this study have been published by the American Library Association: *Libraries and Student Culture: What We Now Know* (2012)[11]. (See Annex II)

For the latter we find the framework for teacher knowledge for technology integration especially helpful. This model, developed by Matthew Koehler and Punya Mishra, was originally called technological pedagogical content knowledge (TPCK) and is now known as TPACK or technology, pedagogy and content knowledge. A good introduction of the model itself and of how to integrate TPCK in specific subject areas as well as in teacher education is provided by the "Handbook of Technological Pedagogical Content Knowledge (TPCK) for Educators" (Routledge 2008). A large number of publications has sprung up around this concept (see: http://www.mendeley.com/groups/522011/tpack/papers/added/9/) some of which expressly address education in the arts using TPACK (see for example: "Placing the magic in the classroom: TPCK in arts education" (DePlatchett 2008) and also http://tpartsck.wikispaces.com/TPArtsCK. (See Annex II)

Topics in educational services for e-collections

From desktop research some topics that should be addressed in the expert interviews and in the surveys arise. First of all it seems important to get a grip on the actual educational use of IT in the domain of the performing arts – especially with regard to:

1. specific performing arts tools and programmes
2. specific databases, libraries and e-collections
3. e-learning environments

In view of the fact that teaching is a 'complex and ill structured domain' and university teachers are as a rule not just deliverers of their courses but also have a relatively high degree of freedom in designing these themselves it can be expected that one will encounter a huge amount of diversity here. A tendency that is only heightened by the fact that the subject matter of the courses differs greatly from university to university and from department to department. Even with regard to 'essentials' within studying the performing arts - such as the 'history of theatre' or 'introduction to performance analysis'- a great variety in approaches, in textbooks and in pedagogy can be found.

However: what can be said to be common to all tertiary education is that students are learning to do research. But the findings on the actual use of academic libraries and on the research skills of students (finding and evaluating sources on the web) revealed that much is left to be desired in this respect. Both undergraduates as

[11] AACTE Committee on Innovation and Technology, 2008.

well as graduate students displayed alarming information illiteracy in the use of scholarly databases and are not using tools that help with citations, bibliographies and references (such as RefWorks or EndNote) to the required extent. Since these research findings were formulated in the USA the question remains whether this can be generalized to the European situation as well. Therefore three other topics to be addressed are:

4. Information literacy of students
5. Desired structure of databases/e-collections and the way they interrelate to each other and the web
6. Possibilities for personalization/customization (playlists, tagging, annotation, etc.)

Finally one is interested in acquiring some information on how our respondents view the future:

7. With regard to e-collections and their relationship with academic education and research
8. Possible strengths of ECLAP and weaknesses to avoid
9. Conditions under which ECLAP can become a self-sustainable (educational) platform (including models of economic viability)
10. The possibilities of e-communities within the educational domain of the performing arts.

2.3.2 Trends in performing arts education – interviews with experts

Based on the outcomes of the desktop research and the user stories seven in depth semi-structured interviews with experts from inside as well as outside the ECLAP consortium were held. This paragraph thematically presents the outcomes of these interviews.

Trusting
The expert users are unequivocally clear on what is seen as the foremost asset of ECLAP: providing a great quantity of trustworthy digital content of interesting materials on the performing arts in good to excellent quality with no hassles concerning IPR issues. In and of itself the bringing together of objects from a host of collections and archives is seen as the most important feature of ECLAP. As one of the respondents worded it: “We cannot underestimate the immense value of simply bringing resources together in a single collection. It’s a powerful thing in itself. As simple as that…”. This being said all experts agree that ECLAP is not the only e-collection of source materials on the web. Hence it should be open to other databases/websites and preferably give access to materials outside of its own domain. ‘Permeability’ is a much-heard keyword in this respect. “Permeability and linking across different collections is the only way to go”.

However, some of the experts see also a danger here and stress the fact that the quality and trustworthiness of the digital resources and the metadata in ECLAP should not be conflated with everything that is out on the internet. And this goes not only for the connection of ECLAP to other e-collections but also for the materials in ECLAP itself: one should avoid becoming a second You Tube and a differentiation should be made between the items provided by professionals and input by amateurs. Sources instantly recognized as trusted are one of the key contributions of heritage institutions to the digital domain. In other words: while remaining open to other collections ECLAP should maintain a distinguished qualitative standard of source materials and metadata.

Finding
The experts are quite clear in how they view the educational possibilities of ECLAP. First and foremost they will use it as an extended multimedial library from which they can take content that will function in their lectures, classes and research. Especially the multi-media documentation of performances (and related items such as playbills or theatre buildings) is stressed here. They need good quality in order to show examples in their classes and they want to be able to take out the source material so they can import it and re-use it in different (presentation) contexts. And they want to have the same functionality for students too: they should also be able to work with the source material in principally the same way as the teachers: exporting it to various contexts such as Power Point presentations or research papers.

But prerequisite to being able to use and manipulate the source material in new contexts is knowing how to find and evaluate these materials. ECLAP should also function as a learning place for searching, finding, evaluating and referencing materials. In this regard each of the experts confirmed that learning how to effectively find the materials that one is looking for is a key element in the education of students and that often research skills are found to be wanting. Although maybe not as dramatic as the findings in the US it certainly seems that also in Europe students are not very well versed in the use of (scholarly) databases. All too often they tend to over-use Google and You-Tube (top two used for finding digital resources in the educational survey) and the sophistication of their queries is limited to one or two keywords without any restrictions or filters. Result is that they will either come up with too few or far too many hits.

Some of the expert respondents also stress the fact that students have to learn to think differently and sometimes need to use imaginative and creative 'lateral' strategies in order to find what they are looking for. As one of the experts put it: "Beyond [the students] fundamental inability to distinguish between good and bad sources is their inability to apply their computer literacy to asking a kind of complicated research question. […] This semester I taught a class that was entirely archival based. We spend three weeks of the semester with opening databases on a big screen and guidance in connecting research questions and basic archival searching. Looking sideways, developing alternative strategies, teaching students how to think in that non-linear way." So, while today's students have grown up in the information age and as a result might seem more computer literate than their (older) teachers the skills they have acquired in high school do not necessarily align with the ways in which archivists, librarians and historians think nor in the way in which databases/e-collections are constructed in order to enable research.

Organizing
Besides the need for students to learn how to effectively find the right items in databases/e-collections they also need tools to organize content in relation to their research. Therefore it is important that they will get acquainted with tools like EndNote, RefWorks or Zotero. The experts we interviewed all agreed on this, but stressed the importance of doing this early in the (undergraduate) curriculum and then continuing throughout the ensuing years so that by the time students write their MA thesis they have become well versed in this and it has become second nature. This is not always the case: as said before there is a tendency among staff members to overestimate the skills of their students in this respect. As a result the necessary attention to teaching and honing these basic skills continuously throughout the curriculum is often at a low level, although: "the better universities have good programs to bring students up to speed; writing classes, sometimes via remote tools such as *online writing laboratories* (OWLs). And there is an increasing awareness of the need for remedial work on this – especially in the area of New Media".

e-Teaching
The experts were all familiar with the concept of e-learning environments (Moodle and Blackboard were mentioned and in at least two cases the educational institution they taught at had developed 'something of their own') but without exception it was reported that they themselves as well as their colleagues used these learning environments in a minimal way. Basically the e-learning environments are only used as an easy means to disseminate information and material to the students (course programs, texts, video's), to enable students to upload assignments and to communicate with them via the e-mail facility. It is the impression that the more sophisticated features of the Learning Environments are used only sporadically in performing arts education and, moreover, that the university teachers in general find them quite complicated and cumbersome to use and even avoid them if they can.

However, this does not mean that classes do not make use of IT. On the contrary: a number of examples of very specific programs and applications tailored to the particular needs of courses were reported. This is in line with the TPCK assertion that teaching is an "ill-structured, domain […] characterized by a complexity of concepts and cases with a wide variability of features across different cases" (Koehler & Mishra 2008, p. 3). The widely varied nature of the content of courses and their educational goals result in the use of very particular programs or even in creatively adopting IT tools to the special needs of a certain course. And these tools are then often so specific that they are hardly transportable to other courses. Some examples:

- blogging, using streaming video and a self-developed tool for writing papers with visual materials (photo's, videos) inserted in the text were used in a special mix for a course on cross-cultural performance analysis which involved students in the UK as well as in the Netherlands,
- A university provides all its students with an electronic 'personal development plan': a supportive space geared towards reflection and storing the individual assignments, papers, exams, etc. Like a kind of portfolio.
- In a course mind mapping is used to summarize literature and to structure one's own research
- It was found that students studying Shakespeare were getting good grades but nevertheless did not know the Elizabethan English – they actually didn't understand a lot of the language. This resulted in the construction of a simple system in which they could interactively annotate and share research on words/concepts. A kind of cross between an annotation tool and a restricted Wikipedia on Shakespearian texts.
- From the 'raw' material of a performance registration with three camera's students are making their own montage
- Students are creating their own set-design for a play and execute it in a 3-d program that provides a virtual copy of the university theatre at their department
- In a class on the avant-garde theatre of the sixties students are required to collect textual, visual, and auditory materials in a 'storage space' after which they have to use these materials to make an attractive virtual exhibition on the subject.
- Etc.

So one should conclude that just as teachers in tertiary education prescribe different (text)books, teach various subjects and depart from different educational approaches they nowadays also use a wide variety of IT tools as well – tailoring them to their particular needs.

Wishing

Despite this variety the experts showed some agreement when asked what they would like best to have as an IT-tool for their students ("If you had a magic wand to make an educational tool, what would it be?"). Some of them answered this question in a more or less general way:

> "When it was magic it would be a very user-friendly portal with a good amount of quality content in quality files: full, open, totally shareable and, important, a very good search tool."

> "My favorite tool would be something that would make searching easier, that would give the possibility to work with the sources and thesauri. Students need access to sources they know they can trust. Besides I like them to work in a sensual and visual way, with viewers and players in which objects can be viewed, moved, adapted…."

Somewhat more specific is the wish for an online tool that is IPR free and instantly can direct one to specific moments in video files. For video material it is thereby important that one is able to either cut and paste fragments of clips into other contexts or that one can have markers so that jumping back and forth to particular pre-set points within the video is possible:

> "My dream would be to have a good and extensive video archive of theatre performances from the 20th century that is IPR free for staff and students. One should be able to make references to these video with pointers that guide you to exactly those parts of the video that you are referring to."

Another respondent stressed an open tool/portal that allows one to take materials from all kinds of sources and repurpose it:

> "It should be a tool that encourages using all kind of online resources and portals. […]with a lot repurposing […and the] ability to take your information and repurpose it in other spaces Taking

> information and then reconfiguring and recontextualizing it. Digital libraries are designed to control information by cooperation. But what students need is the ability to take information and repurpose it in other spaces. Basically this is API. [Users need] finding things without the intervention of the library …"

Finally there are experts who envision a site that is able to help students with their creative endeavors and work:

> "What I really would like is a place that supports (dance-)students with their intuitions and reflection on their work. Annotation of their own recordings is vital in this, but the place should not only be conducive to producing work and analyzing it; it should also be very flexible in connecting with materials out there in order to stimulate serendipity."

> "An archive where everything was available, but more actually controlled and built by [the students] themselves. […] Build an archival map, not an archive in itself…That would be the bigger tool. A larger kind of map and paradigm for an archival research process and how one does that. Something that allows one to step back and show one how you actually start to think like a historian-database maker-archivist would be really intriguing and could transforming the way students work. […] How to understand how they find things they are going to find. Serendipity plus cognitive maps – that would be a dream." And a later bit later on in the interview: "it certainly would be nice to have input from other researchers. Much like Amazon.com or Booking.com give recommendations on the basis of the behavior of similar users ('people who looked at this…were also interested in….')"

All in all one can conclude that our respondents would like to have a tool or website that is able to do two things. On the one hand helping students to find, evaluate, reference and repurpose good quality material – not on just one restricted site but in various databases and archives. On the other hand the tool should be helpful in stimulating awareness of one's own search strategies, in suggesting possible alternatives and in furthering serendipity.

Adapting
In line with the above it should come as no big surprise that adapting an environment is rather high on the list of the experts we interviewed. Basically, as a teacher, one would like to control not only the look and feel of the portal, but probably most of all some of its functionalities for (beginning) students. There is a strong sense that learning progresses in phases of ever growing complexity and that the students should be confronted with (features of) a website that are able to reflect this. Especially the experts who were familiar with ECLAP (or had a cursory look at it) felt that the portal in its present state is too cluttered with all kinds of functionalities and services that are great for the more experienced user but that are not very interesting for students that just want to find materials they can use in their research. It is of vital importance for the learning process that students encounter a strict distinction between 'primary' content pertaining to the performing arts and all other materials and information.

The same emphasis on customization is also found specifically with the annotation tool. While all respondents agree to the fact that a good, user friendly annotation tool is a real asset (and could well be one of ECLAP's more interesting selling points) there is less consensus on whether one would use such a tool and on what it should be capable of. Obviously there are subjects and methods of teaching that do not need an annotation tool or where it is easy to use existing programs. For example: annotation of (electronic) texts is made very easy in existing programs (Word, PDF, etc.). It is different for more visual material. When dealing with static photos one would need a flexible tool so that one can define particular points or areas via visual tagging and upload an annotation which by clicking (or moving the cursor) on this area the user would be able to see (different kinds of) annotations. When it comes to video (or sound) annotation the experts are more divided. Clearly one sees possibilities here for analysis and for practice education:

> "Very useful would be to make [the annotation tool] complimentary to teaching by recording your own performances and analyze and annotate them on the portal. Recording, listening and analyzing is an important part of music tuition, but there are no specific tools for that."

At the same such a tool doesn't need to have the same level of sophistication for every expert:

> "[in dance education] there is a real need for content and to be able to do clever things with it. [But] we don't need really whizzy tools. It is enough to have basic annotation to make sense from our experiences online and ***share*** them amongst a group." [Our emphasis]

But also the possibilities of progressive customization for such a tool are stressed:

> "When an annotation tool is simple this doesn't mean it's limited. You should be able to control the complexity of an annotation, able to choose the level of annotation: level one or level two, have different interfaces, etcetera. Like a video game: you start as a simple player and it gets harder and harder."

Envisaging writing

When talking about the future of academic writing on the performing arts all respondents readily agree that the new technologies make it inevitable that texts will in one way or another merge with moving images and sound. In other words: books and articles will become much more multimedial, providing the reader/viewer/listener with rich content next to the written material. However: this does not mean that one can forego descriptions of performances and scenes. Just as in Art History a good reproduction of a painting doesn't make the description of it superfluous (but rather: points to important elements and renders the observations of the author verifiable for the reader), this is also the case when dealing with performances. The expectations on how this multimediality of (academic) texts exactly will come about differ:

> "Images are texts as well. There will be a great need of visual materials accessed and integrated in publications […] From my point of view you [should] have a page that could be presented like a book. I like to tell a story . And people taking responsibility, as scientists, for this structure and for telling the stories…"

But another expert draws attention to the fact that things can also be less linear and less integrated by pointing to the already existing praxis of complementing a (text)book with a website:

> "As a series editor […] I'm very interested about the possibilities of e-publications: expanding what can come in a book and about what a book is, and in terms of expenses. Have you seen the new book: Theatre Historiography – Critical Interventions plus a website [http://theater-historiography.org] They created a website with an official board, a syllabus bank, etcetera. They gave the book a very productive afterlife, outside the pages of the text"

Whatever may be the form that future writing on the performing arts will take there is no doubt that IT will not only transform the way in which research is carried out, but also will alter significantly how the outcomes of that research are presented in a multimedial way.

Subscribing

The thoughts about how the sustainability of ECLAP in terms of whether or not one would be prepared to pay money for using the site and if so, under what conditions, focus on two possibilities. The first issue – sustainability- is generally seen as one of the dangers to such a portal. Maintenance alone requires a huge amount of man-hours, but on top of that the website should keep up with trends and technological advances that will require renewals and responsive adaptations of its features. This brings in the question of how to ensure that people will continuously come back to the site instead of being driven to it and visiting only once or twice. In this respect the respondents clearly envision a role for a particular (educational) service that is already in place: providing space for groups and communities. Not only is this important within an

educational context (having a class that has a collaborative archival working space) but also it is stressed that within the field there is an increasing eagerness to collaborate (the days of the lonely scholar are over) and to sustain conversations beyond meeting at conferences, interactions at work and so on. Also students who recently have graduated like to stay in touch with the field and look for different ways to enter and stay in the discussion. So, in enabling and stimulating flexible communities lie great possibilities for the future.

Another obvious way to enhance the sustainability of the site is obviously to ask money from the users in the form of a subscription fee of the portal and/or payment for specific services. However, as one of the experts observed: "The competition (commercial publishing houses) is extremely tough. Portals tend to be not very successful when they charge money and although in our field we are accustomed to pay for books and published articles one is not used to pay for access to archives" This being the case one possibility could be to ask for a contribution from the individual user on a voluntary basis. More or less along the lines of the Wikipedia-model: we are a non-profit organization and we would like you to give a donation – at the same time making transparent how one spends the money. However, the general consensus among the experts is that one could make (some) money provided that the website is really good ("not in its present state, but really slick") and the services provided are the best ones possible. When these requirements are met one should then adopt a model whereby educational institutions take a general license for their staff and students, much like is nowadays the case with professional publishing companies that sell packages to university libraries giving them access to multiple journals. Although this seems to be the way forward there is also a clear warning, namely that ECLAP should not try to do this on their own. Rather than reinventing the wheel one should seek guidance from a publisher that is well versed in how to market such schemes and can successfully negotiate with universities and academies.

2.3.3 Trends in performing arts education - ECLAP educational survey

The educational survey is part of a series of questionnaires ECLAP is organizing. Adjoining the survey on the general assessment of de ECLAP portal[12], the educational survey is aimed at getting a more detailed insight in the profile and needs of current performing arts educational users. The survey was created in the online software Survey Monkey[13] and it consisted of seven chapters, together closing the gap between the users and educational digital library services.

1) General respondent information
2) Type of performing arts educational and research user
3) Type of performing arts educational and research practices
4) Use of (digital) heritage in performing arts education and research
5) Use of virtual learning environments in performing arts education and research
6) Use of social media resources and tools in performing arts education and research
7) Evaluation and conclusion

Together with the general survey it was spread from the 14th of October until the 15th of December through the networks of all ECLAP partners and connected projects and networks, via email and social media. The organizations targeted were higher education institutions, both academic and vocational. The survey outcomes are of an indicative nature. Despite great efforts to spread the questionnaires amongst stakeholder groups, the amount of response (N=49) is not sufficient to provide data for a thorough quantitative user analysis of all European performing arts domains. The outcomes are presented in detail in paragraph 3.3.3 Trends in performing arts education - ECLAP educational survey, and in **Errore. L'origine riferimento non è stata trovata.**.

The second survey, organized in autumn 2011 was the educational survey. In **Errore. L'origine riferimento non è stata trovata.** the results of the questionnaire are presented, aimed at getting more in

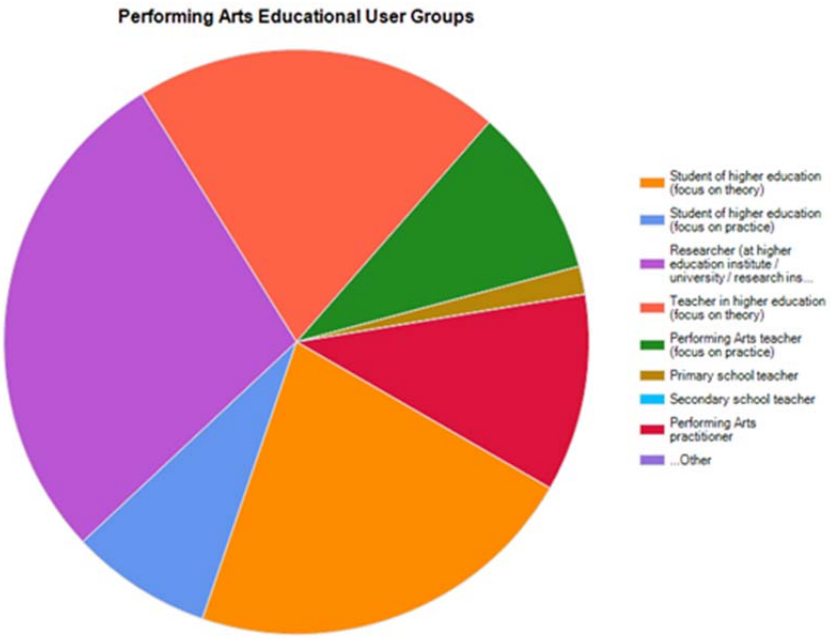
[12] The General Survey 2011 on ECLAP: http://bpnet.eclap.eu/drupal/?q=en-US/home&axoid=urn%3Aaxmedis%3A00000%3Aobj%3Ab43b7488-991e-4bb7-af4b-b17487281e3d&section=metadata.
[13] http://www.surveymonkey.com/

depth data on the characteristics, habits and needs of the ECLAP macro target group of educational users. After two rounds of feedback from the consortium partners, the final version of the questionnaire was opened from 14th of October and closed on 15th of December 2011. In conjunction with the general ECLAP survey, focused on validating established requirements and investigating new ones, all partners were invited to send the surveys to their networks, they were send to relevant performing arts and digital heritage mailing lists and communicated via social media.

The questionnaire consisted of seven chapters. Together these chapters give insight in the type of educational user, type of educational use and the IT tools and services someone professionally applies. Here the main findings are discussed.

Demographics: age, gender, country and type of performing arts user
From the 49 respondents who started the questionnaire 61% was female, male 35% and 4% preferred not to tell (see 9.1). Of the 31 respondents that completed the questionnaire 55% was female (male 35,5%). The age of the respondents varies from 18Y or younger up until 55Y or older. As can be expected the researcher/teacher group (with no respondents under 24Y) is significantly older than the student group (see 9.1).

Fifteen countries are represented amongst the respondents. Major contributions are from EC citizens in England (28%), the Netherlands (16%) and Poland (14%). Country of residence shows a slightly different distribution but the same countries are in the top again: the Netherlands (30%), UK (26%) and Poland (14%). None of the respondents are from outside the EU.



The figure and the tables in 9.1 show what type of user groups are represented in the questionnaire. However: it should be noted that respondents could select a maximum of two groups. Significant overlaps are found between the two student categories and between the teacher and researcher categories. Two teachers indicate to be also performing arts practitioners and one teacher is also a student. When we count these latter three respondents as teachers we can then recode the user groups into a new variable (User group) comprising students (N=16), teachers/researchers (N=26) and practitioners (see 9.1).

Digital literacy

In general the group of respondents can be described as quite heavy internet users when it comes to work or study: more than 40% uses the internet at least 20 hours per week and an additional 35% indicates a use of 10-20 hours which still represents 2-4 hours per working day. (see 9.2) It is interesting to note that students tend to use the internet significantly less than teachers/researchers (N=42, Gamma = .406, p < .06)
When the respondents rate their own digital literacy almost equal portions indicated medium and high literacy (48% and 46% respectively) while almost none thought of him/herself as having low literacy (6%). Although the difference between students and teacher/researchers is not significant there is a clear tendency that the latter rate themselves less computer literate than the former - despite the fact that they are spending more (professional) time behind the computer (see 9.2). Furthermore it should be noted that none of the practitioners rate themselves as highly skilled with computers. Due to this fact and the very low number of practitioners that prohibits meaningful statistical comparisons with the other user groups they have been omitted from all subsequent analyses.

Relationship with the performing arts
The type of performing arts that our respondents study or teach are mainly Theatre or Performance Art (focus on theory as well as on practice) with Music and Dance coming in second and third. In terms of percentages there are no great differences between students and teacher/researchers. As a group the teacher/researchers tend to be somewhat more bend on being involved with practice of theatre /performance and with the theory of the spoken word. Students on the other hand are somewhat more involved in the practice and theory of Music. (see 9.3)

Educational and research practices

Professional activities*USERGROUP Cross tabulation					
			What is your usergroup		Total
			student	researcher/teacher	
	Writing		10	21	31
			62,5%	84,0%	
	Research primary resources		8	19	27
			50,0%	76,0%	
	Research secondary resources		6	20	26
			37,5%	80,0%	
	Teaching		3	22	25
			18,8%	88,0%	
	Social networking		9	10	19
			56,2%	40,0%	
	Presenting		5	13	18
			31,2%	52,0%	
	Performing		6	6	12
			37,5%	24,0%	
Total		Count	16	25	41

Except for social networking and performing on stage the teacher/researcher respondents are outdoing the students in all professional activities. Of course this is no surprise, but the significant differences in researching primary as well as secondary resources are nonetheless noteworthy. As to the nature of dealing with performances the teacher/researchers distinguish themselves from the students by their theoretical involvement with describing performances, comparing them to other performances and contextualizing them. With other practices such as analysing, classifying and doing historical research the two groups do not differ significantly. However: the students are more involved in the time consuming activity of reconstructing performances in practice. (see 9.4 and 9.5) When asked for collaborative tendencies it becomes clear that on theoretical aspects teachers/researchers tend to work quite a lot with colleagues and with performing arts heritage professionals. (see 9.7)

Digital heritage resources
The interest of the teacher/researchers is more oriented towards larger geographical areas than that of the students: the latter tend to focus more on local heritage resources while the former are significantly more concerned with European and global resources (see 9.9) The teacher/researchers are thereby using digital as well as online streaming resources while students forego the former and rely significantly more on online streaming information. (see 9.9) There are no significant differences between the groups as to the type of resources used: both students and teacher/researchers most frequently use images and then, in declining order: video-, text- and audio-files. (see 9.10) Clearly marked differences between students and teacher/researchers show when one looks at the type of websites that are being used. The teacher/researchers are definitely addressing a large scala of websites, resulting in the fact that they significantly frequent the following significantly more than their student counterparts: general content websites like YouTube, sites from performing arts companies or artists; institutional websites and Performing Arts portals/repositories. There is only one type of website that is frequented more by students than by teacher/researchers: private collections. Furthermore it is remarkable that both groups report very low uses of heritage portals/repositories (see 9.11). Although students use Google just as frequent as the teacher/researcher respondents, the latter clearly display more sophistication when it comes to search strategies. Significantly more of them use advanced research capabilities and they also tend to look more at recommendations of related content as well as referring to search histories. (see 9.12)

Virtual learning environments
Virtual Learning Environments (VLE's) such as Moodle or Blackboard are used by 79% of the teacher/researchers but only by 25% of the students while another 25% are at an institution that is using a VLE. Blackboard and Google (groups, docs, document sharing) are the clear favourites in both groups (see 9.13). Of the 26 respondents who answered this question there is a sizable proportion (44%) that works at an institution that obliges them to use a specific VLE. When one looks at the actual use of the VLE's it is remarkable that they are predominantly used for sharing documents. Communication and discussion are secondary, but all the 'extra' features of such learning environments –such as testing, interactive classrooms, programmed instructions, access to bibliographies and archives, etc.- are hardly mentioned (see 9.14). Both students and teachers seem to be quite satisfied with using VLE's: respectively 60% and 88% score 'moderate to quite good' on the question of how they value their electronic learning environments (see 9.15), However: while 75 % of the teacher/researchers think that ECLAP should connect with their virtual working environment, 60% of the students are opposed to this – clearly suggesting that they do not use the VLE to do interactive work. (see 9.16)

Social Media
A sizable majority of the respondents (70%) use social media in their educational and research activities. Although the difference is not significant it seems that teacher/researchers tend to be somewhat more heavy users (79% versus 55%). Both groups favour content websites (such as YouTube, Vimeo, Hulu, Flickr, Picassa) while Social Networking (LinkedIn, Facebook, Twitter) comes in a good second (see 9.17). YouTube, Facebook and Blogtools form also the top three social media that are used during educational activities. Only 35% of the respondents are combining social media websites and virtual learning environments – again this is testimony that the latter are not used interactively (see 9.18). The respondents are not very decisive on the question whether ECLAP should integrate with social media websites: 46% of the teacher/researchers are positive about this while for 31% it's a cautious 'maybe'. For the students these percentages are 25% and 50% respectively (see 9.19).

Trends
It is remarkable how the educational survey corroborates the findings of both the desktop research and the expert interviews. Especially the differences between students and researchers/teachers highlight how the computer skills of the former are overrated and how the latter are much more sophisticated as to the scope of their interest (European, global instead of predominantly local) and with regard to their search methods. Where the students clearly overuse Google via simple searches, the researchers/teachers are to a significant

greater extent relying on advanced searches, search histories and recommendations of related content. The teacher/researchers are also using a larger scala of websites for finding performing arts heritage resources. Another remarkable finding is that although Virtual Learning Environments are not uncommon they are mainly used as a repository for course materials and to a lesser extent as a means of communicating with students or for discussions. It seems that all the extra features of these programs are almost never used and again this is in line with what the experts stated in the interviews. As to the social media it should be noted that students are not ahead of the teachers/researchers: both groups favour content websites (YouTube, Vimeo, Hulu, Flickr, Picassa) and social networking sites (LinkedIn, Facebook, Twitter) to the same extent. Sites that are specifically geared towards collaboration (Office Live, Basecamp, Google, ZOHO) are only used by some of the teacher/researchers but not by the students.
Although the images arising from the educational survey of students on the one hand and teacher/researchers on the other are consistent with the findings from desktop research and expert interviews a slight warning is in order here. Since the actual number of respondents on the survey is quite low the differences between the groups are often not statistically significant ($p < .10$) but rather show indicative trends. Further research that targets a greater number of respondents is therefor in order.

2.4 Services for Performing Arts Education and ECLAP

Based on the expert interviews and questionnaire outcomes, wwe are arriving at a crossroad where performing arts teachers are for a great deal as confident and digital literate as their students– and sometimes even more (searching e-collections!). Together with the continuing growth of ICT usage in education, this makes their intermediary role increasingly influential and complex. Besides sharing knowledge and teaching performing arts practices and their methodologies, they have a third layer they need to get their students acquainted with the relation between performing arts practices, methodology and performing arts-educational ICT resources.

In this paragraph a selection of the most performed activities and trends in performing arts education are grouped into services. The lack of using established e-learning environments for intellectual or theoretical purposes and due to the multiple diversity within the macro target group of educators, this paragraph is exploring education and research services from two perspectives. The first part deals with integrated services, where ECLAP takes the combined position of content platform and provider of educational tools and community services. The second part deals with networked services aimed at connecting, sharing, modeling and repurposing the data provided by the partner institutions. These services have impact on a more conditional or infrastructural level.

2.4.1 Integrated educational use

The starting point of ECLAP is providing everything necessary to enjoy and use digital heritage of the performing arts. ECLAP should be first and foremost an integrated content service platform for all types and levels of users. ECLAP has presented a range of tools and services in its first launch. Compared to other websites the amount of generic services is adequate to (very) good. (See paragraph 4.2.1 **Errore. L'origine riferimento non è stata trovata.**) The implemented techniques serve all user types.

In the interviews most educational experts indicate they would be well equipped with what is currently available on ECLAP. One can search, write, analyse, categorize and collaborate; most organizational and theoretical educational activities are on a basic level covered by available tools. Activities that can be enhanced by providing extra services are contextualizing performances and services for practitioners.

Focus on Theory: contextualizing
From the interviews and survey it appears that contextualizing performances is the most performed theoretical activity. To involve educational users actively with ECLAP content on the portal, this indicates that services should be focused on this activity. In previous research contextualizing performances was defined as ‘Attributing performances (or performance artists) to a certain genre/group and then elaborating on how these performances or artists fit within this genre/group can be considered a form of ‘internal’ or

'artistic' contextualization. The contextualization process is much wider though and ranges from relating a performance to other performances and art works that influenced it (intertextuality) to studying the embeddedness of a performance within its social, political, economic, historical, geographical, etc. contexts.'

- Users should be able to arrange content according to authoritative genre categorizations
- Users should be able to arrange content according to their own genre categorizations
- Users should be able to relate digital objects to each other within ECLAP (existing feature)
- Users should be able to relate external (performing arts) resources to digital objects on ECLAP (already described in ECLAP deliverable 2.1.1 *User Requirements and use cases*.)

The need for searching and grouping of content via a professional intellectual arrangement is clear. ECLAP is working on an authoritative performing arts taxonomy which will be the base product enabling this service. These continuing efforts should be given high priority, since for the performing arts domain there isn't anything available internationally that is up to professional heritage and educational standards.

Focus on practice: analysing

The needs of practitioners or performing artists can be divided into modest versus very complex in terms of technical solutions. The thing practitioners are in need of most is high quality audio-visual content. On vocational schools learning-by-example is one of the mean methods. Looking at other singers, dancers, actors and performers, the way they use their voice and move their body is an intrinsic part of the didactic practice. Mostly it's about live, physical encounters between students and their teachers, but teachers focused on practice indicate they use video and audio content a lot as well. To be able to use this content productively, they need high quality content. Audio and vision need to be extremely well, and viewing needs to be stripped from all fuzz and distractions. Several experts indicated they would be well served by the possibility of uploading registrations of their own practices. They need a place where they can view and analyse their own work, connect and possibly compare it to other sources. As written in paragraph 4.1.6. they call for different levels of annotation, so a user can start at an easy level of working and progress at its own speed to more complex and elaborate levels of analysing activities.

The technically more complex features turn to ideas on specialized software, for example tools and software to combine multiple camera recordings into one 3D experience. Teachers indicate they would use this in the way of recording performers from different angles to make the learning-by-example as real as possible. Secondly they mention tools or software to decompose and analyse specific body movements or sounds. Within the scope of ECLAP these kind of services cannot be developed and offered. But this expert input has impact on three project elements. Being aware of those needs, the ECLAP consortium should focus on the aggregation of high quality audio-visual content, on providing content that is compatible with different kinds of hard- and software, working with standards as much as possible, and thirdly these suggestions will be taken into account as future directions, as possible input for interesting developing strategies.[14]

Simplicity and transparency

In the interaction with students, educators emphasize not the quantity of services, but the quality. Ease of use, simplicity and transparency are seen as fundamental in generating interaction between a teacher and a student. "They [digital libraries] are designed by people who know how to manage information, not how to use them […]." Ease of use is not a trivial thing. All interviewees with experience in using the ECLAP portal indicate improvements on the level of usability as one of the main priorities in creating sustainable services for education and research.

[14] These topics are part of the topic list of the Call for Papers of the first ECLAP International Conference, Mai 7th-9th, http://www.eclap.eu/drupal/?q=node/65309.

2.4.2 Networked services for education and research

As written above the position of ECLAP providing everything itself, is not a viable principle. Part of the users will be attracted by the integrated services, another part will be more attracted by possibilities of combining ECLAP data and tools with resources they are already using. Others may be attracted by services allowing the reuse and repurposing of ECLAP content altogether. Connecting people, data and tools is a potent network strategy. To cultivate use in the most encompassing way, it's essential to meet all requirements of educational users by connecting to and facilitating exchange with other much used or promising platforms.

Sharing

There are several options for sharing on ECLAP. They are currently restricted to sharing via links.[15] These options can be expanded by implementing connections to other platforms already in use by teachers and researchers for educational purposes. Based on the research one of the most desired sharing options is connecting to bibliographic citation tools. As written above one of the main activities in researching and teaching how to research is collecting resources and organizing them. There are a number of platforms and tools available. Well known examples of citation management tools are RefWorks, Endnote, Mendeley or Zotero, of which the last is free and open source.[16] To connect to those platforms would be a specific service for these user groups. The interesting part is in not only extracting the link of a digital object to these platforms, but in exploring the possibilities of extracting the corresponding metadata in internationally standardized bibliographic formats as well. These relations are well established in the world of library catalogues, but not so much in multimedia digital libraries. This would add a user group specific aspect to the more generic sharing services.

Personalizing

Based on the findings in the usability tests, the interviews and the surveys ECLAP is perceived as a complex and comprehensive website. It has a lot to offer in terms of content, information and actions. Most respondents indicate they would only use part of the tools. To give educational and research users easy access to components they are inclined to use, it's worth exploring how ECLAP could direct its interface design as part of the continuous development towards a more widget-like model. Screen components like *Search Filter*, *Europeana results*, *Keyword Cloud* or *e-Learning Block* can already be controlled via individual configuration.[17] They are optional and can be removed or added again. This service could be expanded. All building blocks should be individually and easily configurable. This would allow teachers to create an ECLAP environment adapted to the needs of a group of students or a specific class. Educational levels and educational activities could be served, by switching component on or off and modelling the ECLAP environment according to individual, temporary needs allowing levels of complexity.

Individual modelling should be explored as a networked service by providing components from within ECLAP as well as components from external online content and service networks. One part where the network can enhance the user experience is in providing optional components accessing other media and heritage databases related or relevant to the performing arts. A search widget for Europeana is already implemented. The Europeana component simultaneously presents results from Europeana based on used search terms in ECLAP. From the perspective of ECLAP this is a service of federated searching. Expanding this direction without presenting the users at first sight with too many options would be a contribution to educational use. This direction could be continued by offering domain specific access points to external resources via widgets, aimed at researchers, students or practitioners.[18]

Customizing

[15] Current options on ECLAP: Delicious, Digg, Facebook, Twitter, Myspace, Messenger, Orkut, Plaxo, Linkedin and Google.
[16] See also https://digitalresearchtools.pbworks.com/w/page/17801648/Citation%20Management%20Tools.
[17] Current options on ECLAP: Search Filter, Europeana results, Connection requests, Organize_collection, Keyword Cloud, Query Cloud, Calendar, Eclap Workflow Block, Userstat Statistiche, Groupstat Statistiche, e-Learning Block.
[18] ECLAP partners and user group members will be consulted for relevant input.

Customization services are interpreted at two levels, the one presented above, to adapt ECLAP itself easily to personal needs and secondly on a more complex and infrastructural level to combine ECLAP with external documents by frames. This next step of defining customization as a service is providing high end users with the possibility to compose and recompose their entire ECLAP environment. By providing i-Framing functionalities on request, ICT knowledgeable teachers and educational ICT support staff could create real customized educational environments. Parts of ECLAP could be combined with external blog tools, with external search engines, with heritage or scholarly databases, with citation tools. Educators could create an environment with the best of everything, experimenting with parts to create something that is up their specific pedagogical standards. This has been extensively presented in deliverable 5.2.1.[19]

Repurposing
Extracting data via API's is a service, which will be mostly used by heritage professionals. But according to the interviewees it's probably just as important for educational purposes. They all stress the fact of openness, but besides that, tech savvy teachers indicate they actually built their own learning spaces not only by using i-Framing techniques, but also by using API's from different providers combining it with tools they like. They are actually using learning-by-doing methods in class. The difference with i-Framing is that i-Framing is customizing and contextualizing with ECLAP. With an API, the data is completely recontextualized in another or new environment. i-Framing is specifically interesting for educational purposes. The API is interesting for several ECLAP target groups.

Apart from who is going to use these services, it's a matter of principle that connects to the performing arts educators theoretical activity of contextualization and recontextualization "[The] ability to take your information and repurpose it in other spaces – to the basis [this is] API. [Users need] to find things without the intervention of the library. […] Information is effective when it's organised – local it's true, but universally it's not necessarily true. [We need to be able] to reappropriate [data] to a local teaching and researching context. It's not about performance but about reperforming with your data […], completely recontextualizing the collections. Portals are not sufficient in themselves."

Open data is a currently a much debated topic. From the level of the EC by commissioner Nelie Kroes (http://blogs.ec.europa.eu/neelie-kroes/tag/open-data/) to the level of national and local initiatives the heritage sector is pushing open data standards and strategies.[20] Europeana itself has an API on its metadata. What an ECLAP API would add, is opening up the complete set of ECLAP metadata, more enriched then the set available via Europeana. It would contribute to ECLAP's transparency and it would be a contribution to the Performing Arts information society. Funded by public money it is a way to secure results of our effort as public property.

[19] DE5.2.1. *Best Practices from the working groups*, paragraph 4.3.2., 17-21.
[20] For Dutch initiatives see http://www.den.nl/blog/bericht/3209.

2.5 Conclusions and recommendations on Educational aspects

Please note that the following conclusions are referred to usability tests performed in 2011.
Teaching students about the use of databases and archival structures by searching through multiple databases at the same time expands and structures their search skills. It also expands their awareness about the historic coincidence so fundamental to the selection process of creating and keeping archives and collections. The position of teachers is crucial for students to build understanding of scholarly databases, to create knowledge about the relations between databases and, mostly, for the adoption of these research resources and their tools. For ECLAP to become a success this is a essential element in targeting users in the theoretical and in the practitioners' end user groups.

Teachers are the mediators between scholarly knowledge and practices on the one hand and students on the other. This makes them the mediators between ECLAP and the future (high end) users. The transfer of knowledge and skills still mostly takes place during live encounters. What makes education in the performing arts domain specific, is acknowledging the importance of face-to-face tuition and the leading role of the bodily experience for practitioners. The live experience plays a key role in performing arts and this medium specific quality is omnipresent in its education as well. In other words: teachers are the key persons in propagating ECLAP.

The joint and most important goal of this project is for people to start using ECLAP. Maybe start with trying the basic tools and preferably progress to using the more elaborate services. For educational users this process starts with showing why and how ECLAP is a trusted, high quality resource for teaching and research. The core content needs to be rich and clearly historically based. The basic metadata needs to be authoritative, which at least means it's as historically correct as possible, as objective as possible and well-structured. If ECLAP is able to communicate this characteristic to educators then the next steps will be for them to explore the different services and progressive levels of engagement with ECLAP as a community website.

Emerging from this research, from the desk research as well as from all the user feedback, generic e-learning software is generally available, but teachers in the performing arts tend to use these applications only as a basic organizational and communicative tool. More complex features of e-leaning applications are simply not in use. However there is a variety of customized applications and IT tools that are tailored to the specific needs of individual courses, only used locally. The educational user groups are relatively well known with using computers and using the Internet. They feel confident using them in their professional activities and are using them often during their work. This could lead to the conclusion that the acceptance of relatively complex services and tools would be good. These trends can be an advantage for ECLAP. If they are convinced in starting to use ECLAP, ECLAP can build a solid, dedicated educational user group by turning this use into long-term commitment. The entry point, the basics, needs therefore to be excellent in all its aspects. ECLAP should ease the passer-by, and at the same time attempt to generate a deep level engagement and a durable relationship with interested users.

Defining customization as an educational service, from modest modelling up to infrastructural rearrangements is a way to meet one of the major characteristics of all ECLAP user groups: their multiple diversity. They all share the urgent basic need for access to searchable, high quality, performing arts content. They all share the need for arranging and sharing content, but from those requirements onwards their interests depend on the activities and practices they employ, the disciplines and genres they are occupied with, their level of digital literacy, the (online) educational environment they are committed to, the tools the platforms or hardware they are used to, etc. Since ECLAP is not just a content provider but a service network itself, the best way to respond to these layers of diversity, is to let users arrange to a certain extend their own ECLAP environment. By providing an abundance of services on the portal itself, people will be able to use the content in different theoretical and practical settings. Focusing on flexibility will answer to the diversity of educational users and uses. The basic and more complex integrated services are key in building long term relationships with users.

Most users are accustomed to using general tools and resources for their performing arts practices. For a lot of users ECLAP can fill this gap by providing domain specific content and services. To complete the approach of maximum flexibility the users, not inclined to give up their current tools and resources, need to be provided with options of combining them. This will allow them to merge domain specific content and services of ECLAP with their generic or even more specialized tools. Besides the practical approach of combining resources, from a business model and ethical perspective ECLAP needs to share its data, in this way supporting on an infrastructural level educational (and leisure) activities with performing arts digitized heritage data. Let users built their own applications for their own devices and their own educational resources by shared ownership. This makes flexibility a strategy for engagement and adoption.

Identification of specific practices and needs was done parallel to testing the first version of ECLAP. The main outcomes for performing arts educational conditions are:

- Diversity: The diversity within the performing arts education is perhaps one of its most distinct characteristics and leads in almost all cases to customized solutions rather then generic ones.
- Live encounters: The live experience or face-to-face tuition is central in performing scholarly and vocational education, parallel to its position in the performing arts themselves. Services for education need to be highly applicable to diverse live teaching and learning settings and teachers play a crucial role as intermediaries.
- Multiple spaces: Performing arts education can take place in a classroom, but also in a studio or in a theatre. This is a strong call for mobile applications.
- The performing arts combine multiple disciplines and professions. This innate interdisciplinarity makes it important to facilitate processes of unravelling and retracing the elements. This points to a focus on analysis and contextualization services.
- The interviewed indicate a strong need for (and heightened sensitivity for) visual quality of digital products and services.
- The need for trusted, high quality content is overwhelming. The availability of digital content is not self-evident for the intangible performing arts.

Generic concluding recommendations based on domain specific characteristics:

1. Communication
    a. Focus on the intermediaries, i.e. teachers
    b. Focus on building and communicating trust
2. Validation outcomes
    a. Separate authoritative and user generated resources
    b. Strive for simplicity and clarity as part of usability
    c. Strive for excellent basic tools and features
3. Focus on basic educational needs
    a. Provide extensive search facilities
    b. Provide ways of non-linear searching
    c. Connect to teaching and research services like bibliographic citation tools already in use
4. Acknowledge diversity of user groups and use levels through focusing on flexibility
    a. Facilitate personalization and modelling of an integrated environment
    b. Facilitate connecting to relevant external resources
5. Focus on open and connected structures
    a. Create standardized, open data
    b. Create a modular user interface
    c. Create an open infrastructure

3 Specific Services for Leisure and entertainment

In the last year of the project a strong effort has been provided by the ECLAP consortium to provide usable and effective services for users. According to usability tests that have been performed, many useful indications (in terms of suggestions, criticisms and approvals) have been collected. Thanks to these results many enhancements have been performed on the ECLAP tools and services.
This section reports the results of activities referred to the general validation of the ECLAP services, performed by analyzing the statistical data representing the use that users do of ECLAP, and the results of the usability tests that have been performed in the last months by an independent group of experts.

3.1 Validation - Statistical Analyses of ECLAP portal use

The ECLAP assessment activity reported here has been performed in order to collect user behaviour statistical data regarding the most used portal tools and sections. ECLAP portal's functionalities are taken into account with respect to the current requirements. If useful, a comparison among the data of the M24 and M36 has been included to highlight the evolution in the use of the ECLAP portal performed in the last year.
The statistical analysis is conducted by using custom developed Drupal modules, deployed on the ECLAP portal, and external tools like ALEXA and Google Analytics, allowing to get a detailed overview of the ECLAP portal activities performed by users.

3.2 General assessment of the ECLAP portal

In this section the results of the comparison between ECLAP and other important social network portals are reported. The analysis has been performed to understand weak and strengthen points of ECLAP in comparison with other related portals on the Web in an objective manner.
The data have been recovered by using Google Analytics tools and ALEXA (http://www.alexa.com), a leading provider of global web metrics.
For the general assessment of ECLAP the following parameters have been analysed and compared with other social networks offering services comparable with ECLAP:

- Bounce %: represent the estimated percentage of visits to the website that consist of a single pageview;
- Time on site (min): represent the estimated daily time on site (mm:ss);
- Search %: indicate the estimated percentage of visits that came from a search engine.

The analysed data have been collected at the end of June 2013 and refer to the last three months (March, April, June 2013). The data are reported in the following table.

Website	**Bounce %**		**Time on site (min)**		**Search %:**	
	M24 value	**M36 value**	**M24 value**	**M36 value**	**M24 value**	**M36 value**
ECLAP http://www.eclap.eu	***60%***	***27%***	***3' 45''***	***6'***	***9,3%***	***38%***
Vimeo http://www.vimeo.com	57%	61%	4'	3'39''	9%	12%
Orkut http://www.orkut.com	52%	42%	1'45''	3'22''	4%	5%
MySpace http://www.myspace.com	49,6%	46%	3'	3'	21%	21%
Friendster http://www.friendster.com	45%	33%	3'10''	4'09''	10%	4%
Flickr http://www.flickr.com	39%	38%	5'30''	5'27''	15%	13%
Twitter	38%	32%	7'	10'31''	5%	5%

http://www.twitter.com						
Hi5 http://www.hi5.com	33%	16%	5'30''	17'10''	21%	4%
YouTube http://www.youtube.com	33%	24%	18'	24'	10%	10%
Bebo http://www.bebo.com	32%	33%	4'30''	3'46''	16%	12%
LinkedIn http://www.linkedin.com	26%	30%	7'	7'15''	9%	8%
Facebook http://www.facebook.com	24%	18%	24'	34'	5%	5%

3.3 ECLAP figures

The ECLAP portal was monitored in the period July 1st 2012 – June 26th 2013, in order to collect relevant figures about the exploited services. This section presents the collected data and discusses the open issues. The corresponding data are reported in the Annex of this deliverable.

- The vast majority of activities on the ECLAP portal was performed by anonymous users, thus not logged into the portal. This applies to content views (~92%) and content downloads (~96%).
- The most exploited content types were pdf (26704 views), images (77252 views), videos (47384 views).
- Content views performed after issuing a query came mostly from Italy (4857), Hungary (3738) and Spain (1405). The interface languages mostly exploited were english, hungarian and italian.
- Views after a query were mostly from Windows systems using the Chrome Web Browser, followed by Firefox and internet Explorer.
- The general web page and the general blog were accessed respectively 4499 and 2530 times, with the majority of accesses coming from anonymous users.
- Content creations were mainly of cross media type, due to the scheduled content ingestion process that took place during the project window.
- The great majority of content views belong to groups, followed by pages and then cross media contents.
- The most exploited cross media type were images, video and pdf. Non significant numbers were collected regarding playlist, ePub and slide.
- The section from where the users mostly accessed the contents were groups and content suggestion.
- Views of contents coming from educational users (teachers, students, researchers etc.) were somehow limited with respect to the toal amount of views (~3.2%). The same applies for content download from educational users, with a negligible part of downloads performed by project partners in this category.
- Users gender were equally divided among male and female.
- Professional content uploads (70255) came almost from partners, due to the scheduled workflow process to manage during the project. Uploads per affiliation, in the backoffice, exhibited the same behaviour.
- Users were not interested in dealing with playlists or collections, with minimal numbers for creations and access. QR usage were reported negligible numbers too.
- Metadata enrichments using metadata editor more than doubled the number of metadata insertions and updates. This indicates a limited usages of this kind of service, expecially for refinement of content translation. The metadata editor was mostly used by project partners, for project related goals.
- Simple queries, performed from the full text query interface on the home page, collected 35289 instances.

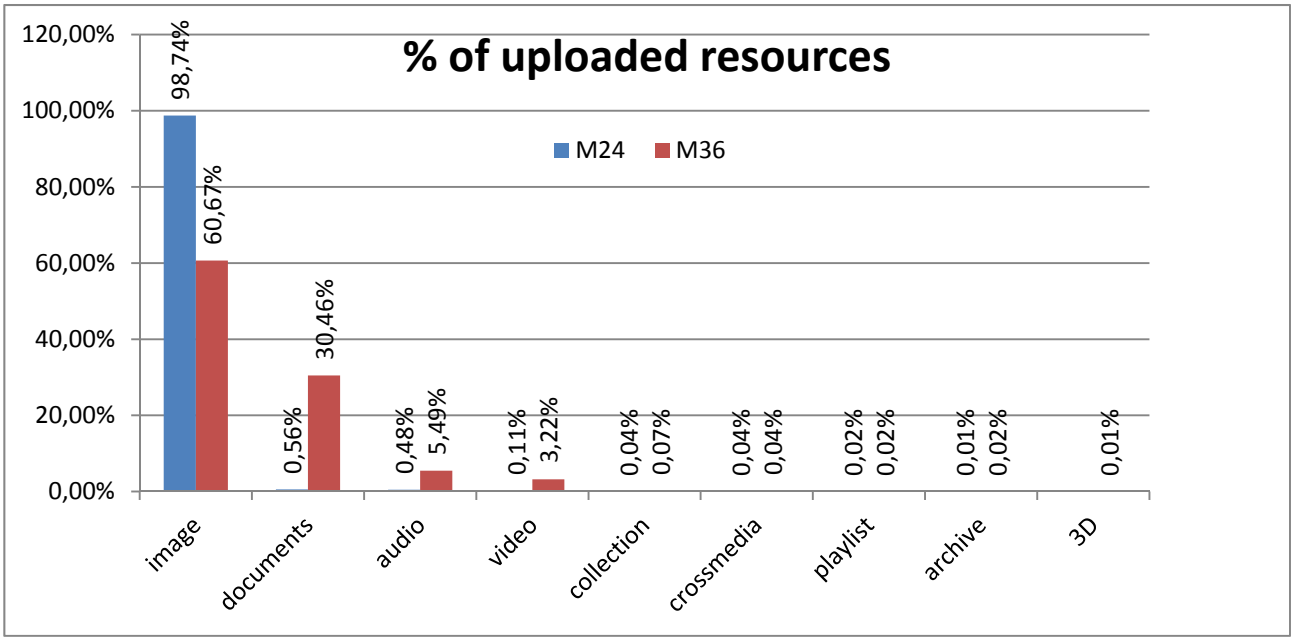
- The vast majority of queries were of simple type, with a few numbers related to the advanced query category. Users showed limited or no interest for taxonomy query refinement, faceted queries and keyword and query cloud related queries.
- Ranking of contents received no attention from users.
- Similar content views were on of the most successful services on the ECLAP portal. Users liked to click on similar contents (86655), after viewing a content.
- On the contrary, promoted contents clicks, media and text annotations were not exploited by users.
- Regarding the interaction among ECLAP and other Social Networks, users had the possibility to export links with suitable buttons (Digg, Facebook, Delicious, Twitter, Messenger, Orkut, Plaxo, Linkedin, Google). This service was exploited 683 times, mostly from public users.
- Forum, blog and page creations, outside the scope of the project, registered few appreciation from users.
- The ECLAP portal collected 1050 new user registrations, mostly from users belonging to institutions that were project partners. A limited number of registrations came from educational users. The majority of users did not specify a technical specialization or belonging institution into their respective profiles.
- The total number of registrations showed a considerable growth during the last year of the project (50 in 2010, 513 in 2011, 654 in 2012, 764 in 2013 until June), with a peak of registrations in March 2013 (probably due to the approaching ECLAP 2013 Conference).
- User connections (friendship requests and messages) were poorly exploited by users.
- Regarding content access from mobile devices, 8017 accessed came from anonymous users, almost of video type, and related to similar content views. Downloads from mobiles were mainly of document type.

3.4 Internal assessment of ECLAP portal usage

This section reports updated data referred to the last year of the project. The following data provide a clear representation of the most used services and resources on ECLAP.

3.4.1 Internal assessment: Resource uploads

The following grapg shows the distribution in percentage of resources uploaded on the ECLAP portal at M36 in comparison with M24 values.



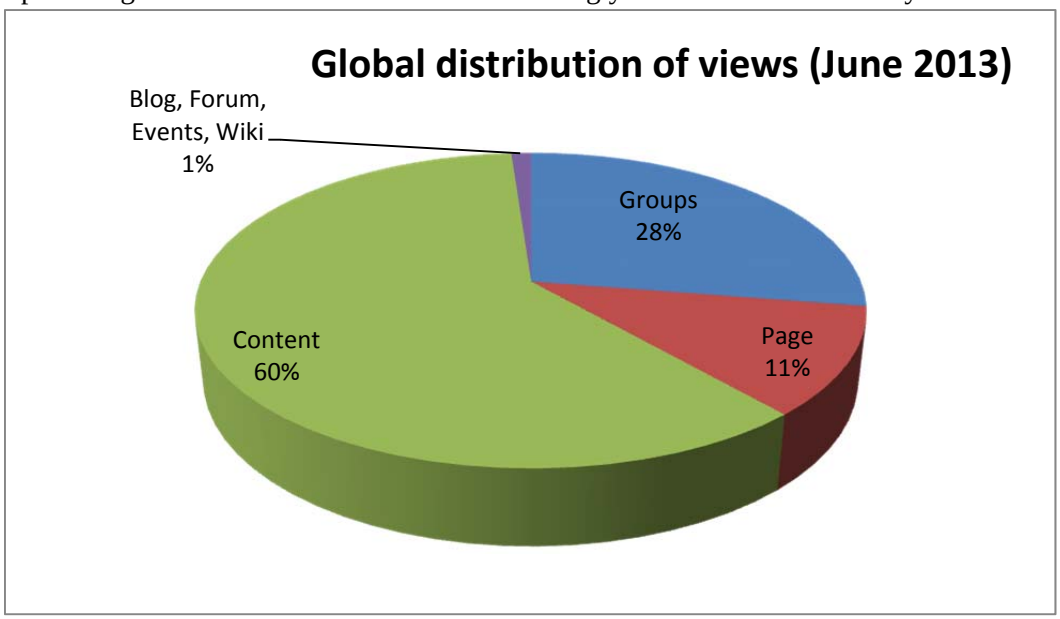
According to the analysis performed in the reference period (1 September – 30 November 2011), the largest part of content uploads is related to images (98,74% of the total). Documents and video resources follow and had almost the same values (about 0,5%). The other resource types have very small values.
The big number of images uploaded is due to the fact that in the reference period a single partner (ITB) started the massive ingestion process of its archive of images (with a percentage of 98,74% of the whole ECLAP ingestion activity in this period).
In M36 the percentage of images is about 61% of the total resources available on the portal, followed by documents (30%), audio (5,5%) and video (3,22%). Aggregated content collected really small percentages.
Despite the apparently small percentage of video resources available on the portal, they collect high numbers in tems of accesses (31% of the total accesses to resources are on video, as reported in details in the following section).

3.4.2 Internal assessment: Resource view

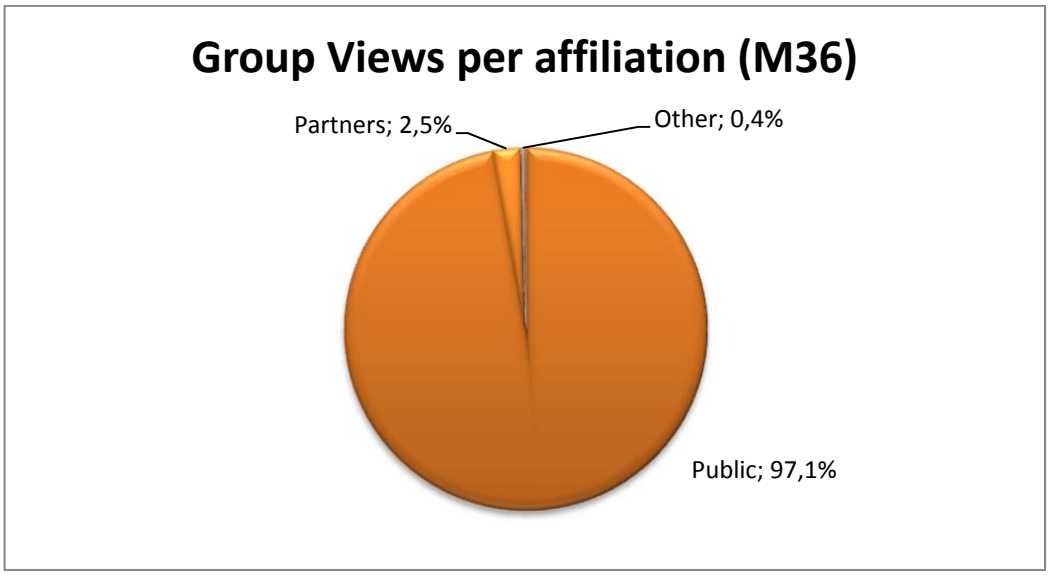
Regarding the views of ECLAP resources and pages, in total, the majority of the traffic produced on the portal as second click is divided as follow:

- 60 % are accesses (view) to content (it was 25% in M24)
- 27 % are accesses to groups (it was 35% in M24)
- 11 % are accesses to pages (it was 33% in M24)
- 1 % are views of other pages (events, blog, forum and wiki)

So that the percentage of accesses to content has been strongly incremented in the last year.

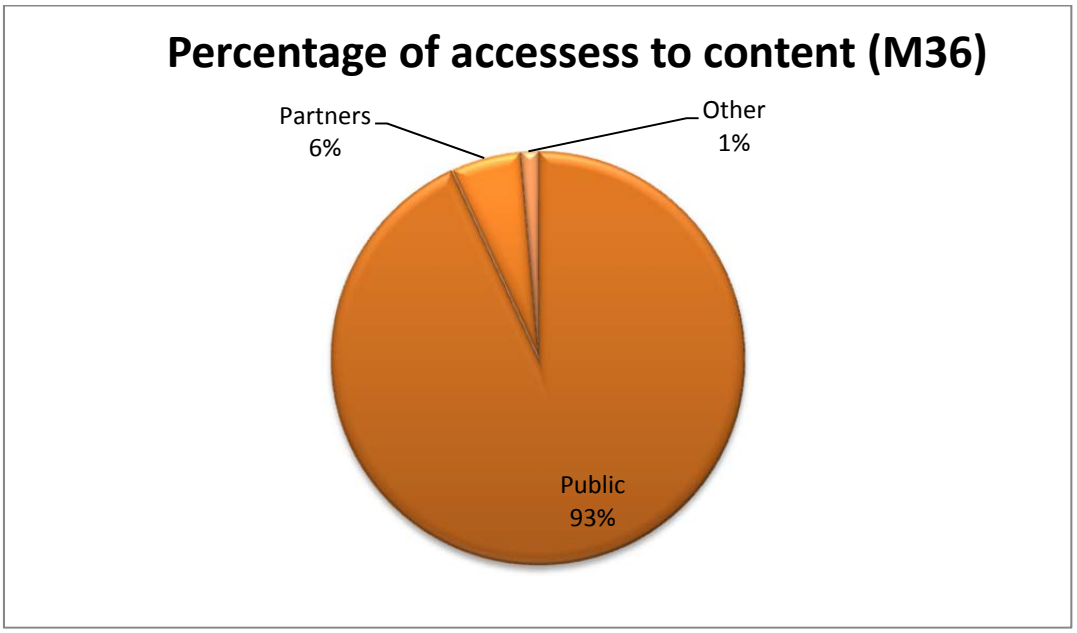


The distribution in percentage of access to groups is dominated by public users:

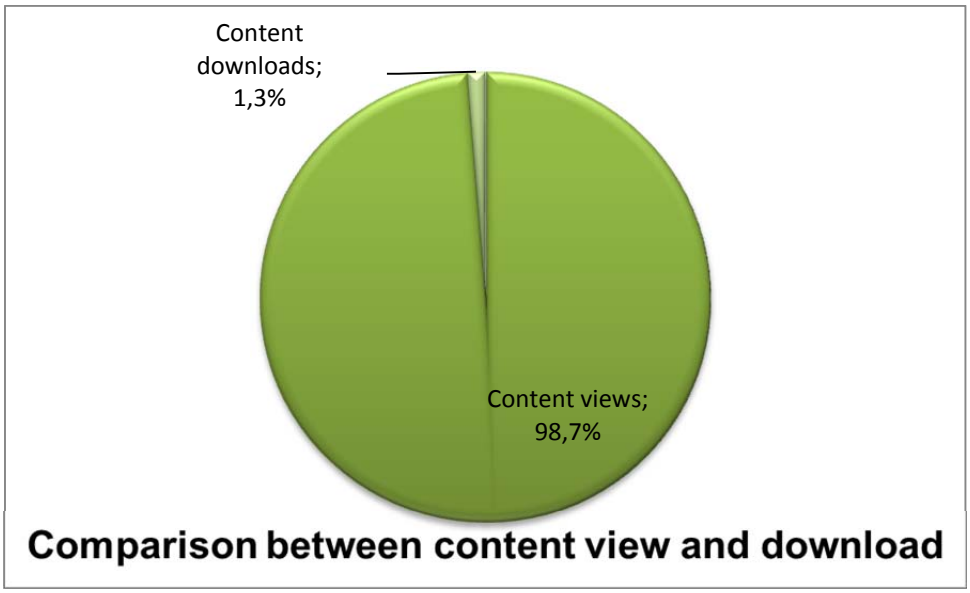


The same distribution in percentage is confirmed also on access to pages.

The distribution in percentage of access to objects performed by public users incremented in the last year, from 76% in M24 to 93% in M36.

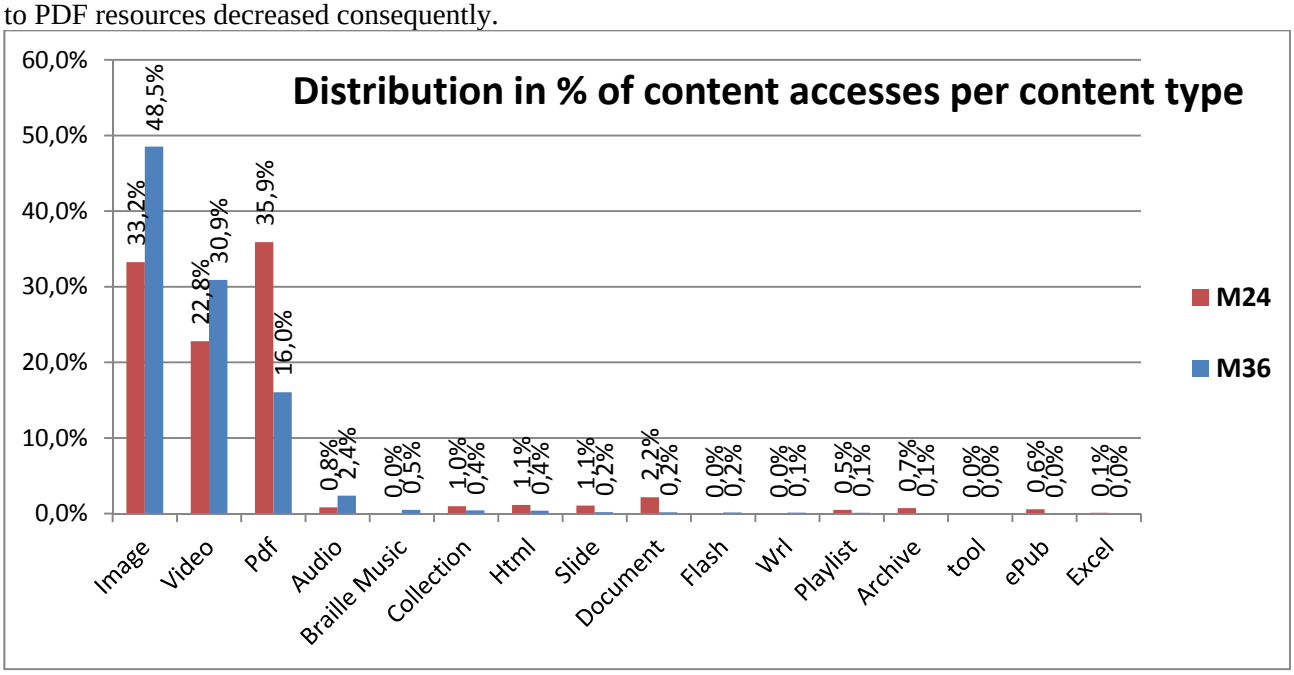


The percentage of content vies in comparison with the content downloads has been incremented and passed from 86,8% in M24 to 98,7% in M36, as shown in the following graph.

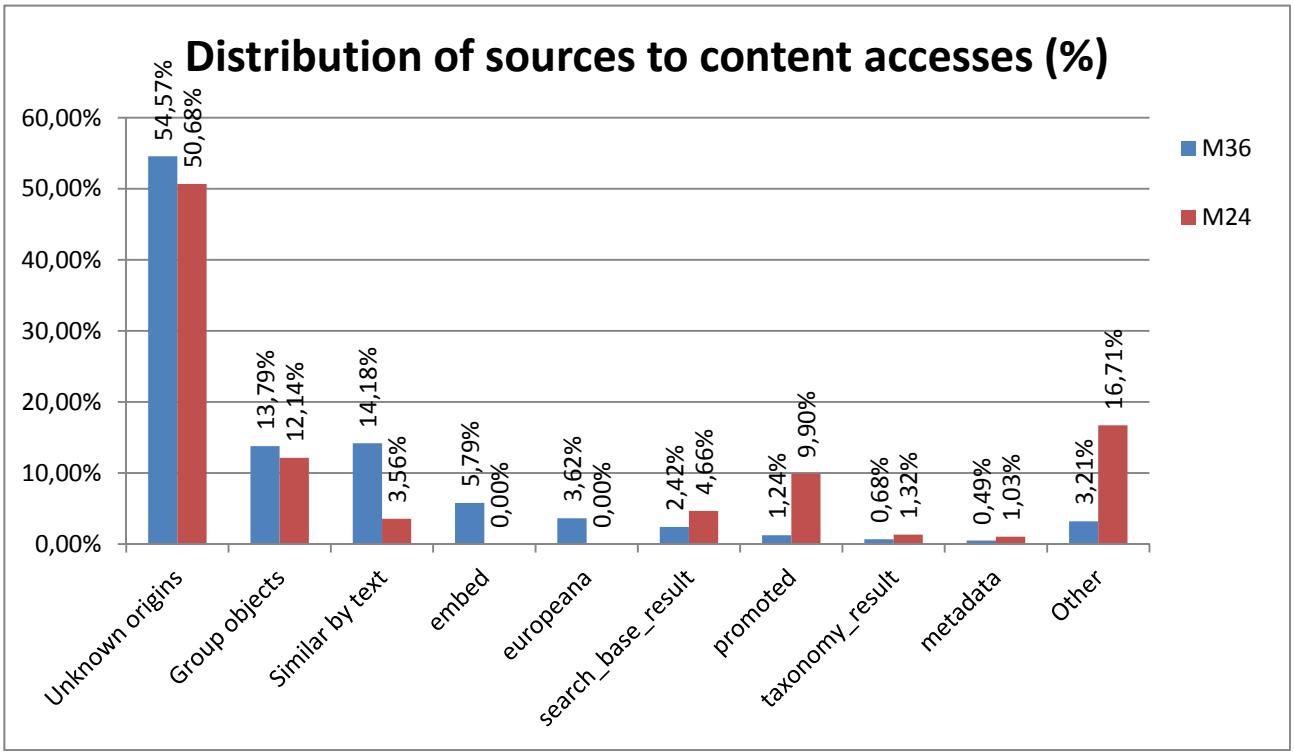


- Percentage of content views performed by EDU users passed from 11,5% in M24 to 4% in M36
- Percentage of content download performed by EDU users: 6,6% in M24 to 2% in M36

Regarding the access to the ECLAP content, the following graph explains which are the most viewed resources per content type.
The graph shows an increment of accesses to images and videos resources in the last year, while the access to PDF resources decreased consequently.



Accesses to the above mentioned resources come from the different sources that are listed in the following table.



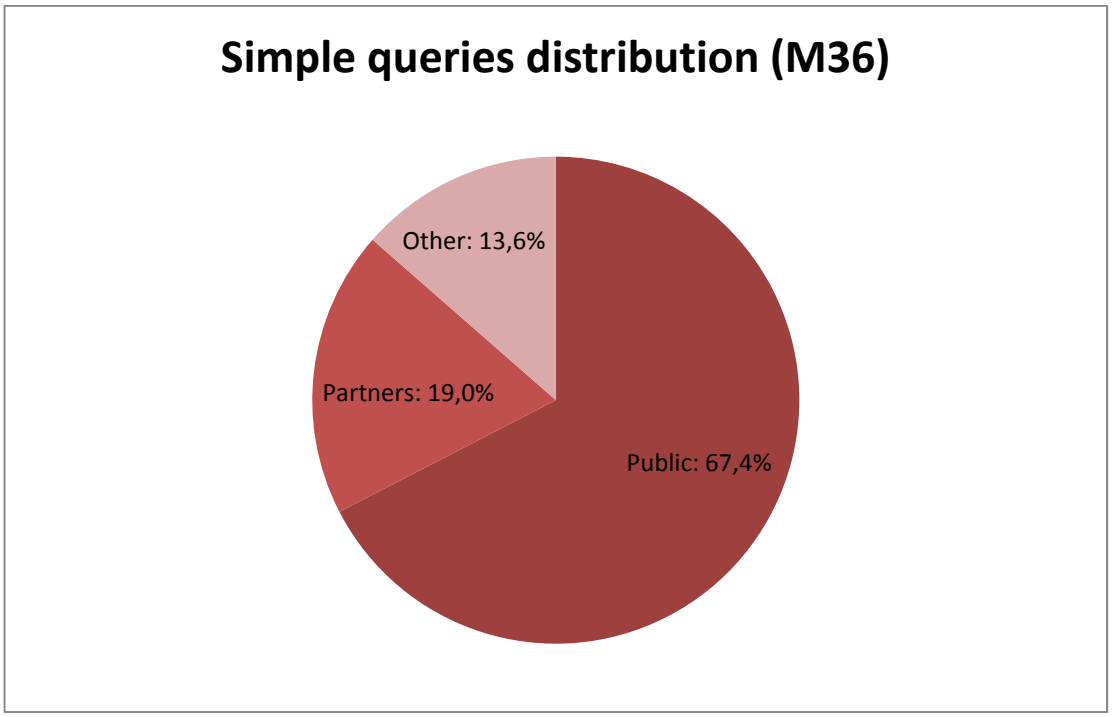
Access to the above mentioned features are performed generally after 2/3 clicks.
As highlighted in the previous graph, users access content mainly by clicking in the list of Group objects and similar objects. Also the 3,62% of content accesses comes from Europeana.

Regarding the percentage of accesses related to page (11% of the total), the following table shows the top ten list of the most viewed pages on the portal in the last year.

Page nid	N° of Views	Title
3918	20738	Performing Arts Digital Collections for the New Millennium
3727	15380	European Collected Library of Artistic Performance
3739	12861	Content and Metadata Ingestion
3578	10903	ECLAP Partners
3729	10312	ECLAP main contact point
3738	4363	ECLAP Content Aggregation and Enrichment
113965	2111	ECLAP 2013 Conference
4014	1594	ECLAP Press Cutting
3748	1549	MyStoryPlayer, the audio visual annotation tool
135871	1527	In memoria di Franca Rame, 29 Maggio 2013

3.4.3 Internal assessment: Search

Regarding searches performed on the portal, it is interesting to note that only 1,5% of the queries are performed by using the advanced search, 1,4% of queries are performed by using the taxonomy, the 4,5% of queries are performed by using the faceted search facility. So that the 94% of the total searches performed on the portal are simple queries by using the full text search.
The following chart summarizes the distribution of simple queries (in percentage) on the basis of the type of users (in the last year). The values are aligned with the data collected in M24.



3.4.4 Internal assessment: Views from Mobile

In M24, by considering the total number of accesses on ECLAP (28.237) on the reference period, the 3,3% (987) of them are performed by using a mobile device.
In the last year the portal collected 55.631 accesses in total (according to Google Analytics data), the 3% of them are performed by using a mobile device and another 4% is performed by using a tablet.

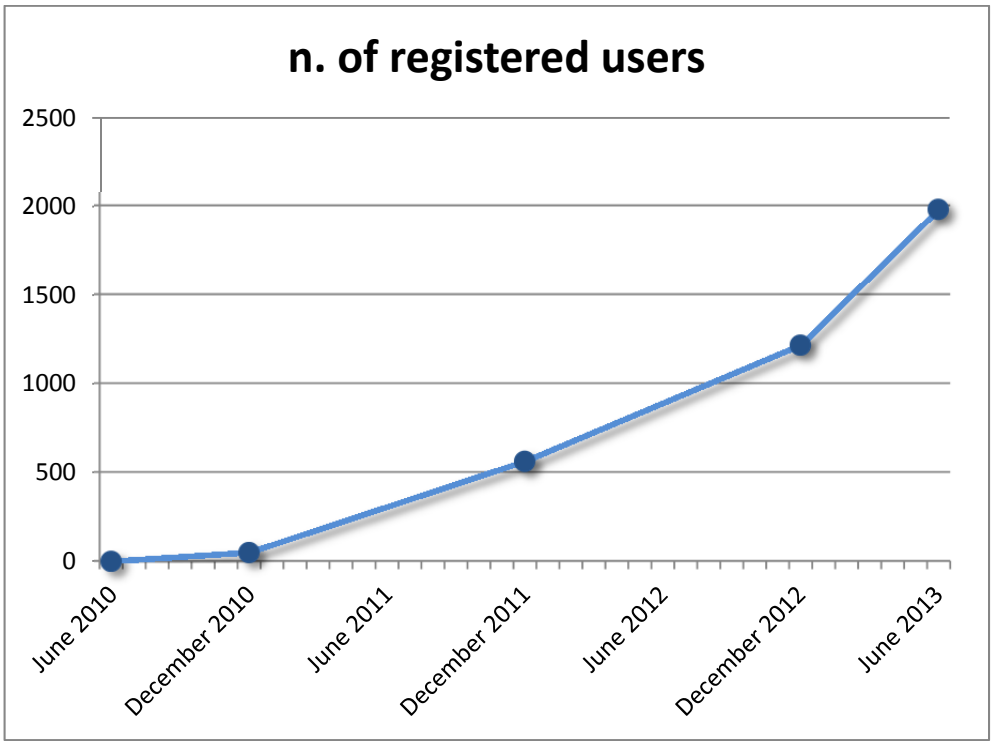
In the last year the accesses via mobiles are distributed as follow:

- Public users: 89%
- Partners: 7 %
- Registered users: 4 %

3.4.5 Internal assessment: Portal Registration per year

The following table summarises the number of users' registrations reached during the project.

Year	n. of registered users
2010 (from Jun to Dec)	50
2011	513
2012	654
2013 (From Jan to Jun)	764
TOTAL	**1981**



It is interesting to notice that the value reported in 2013 is referred only to the firt six months, from January to June. So that in this last period of the project the number of registered users has been strongly incremented with respect the 2011 and 2012 trend.

3.5 Identification of leisure use and services in the performing arts domain

For leisure and entertainment purposes the following services have been set-up and selected as the most effective and useful:

- MyStoryPlayer
- Social Graph
- Multi tenancy (Group Designer)
- Content Organizer
- Personal Homepage

3.5.1 MyStoryPlayer

MyStoryPlayer is one of the ECLAP tools that is also promoted by EUROPEANA (http://pro.europeana.eu/web/guest/thoughtlab/enriching-metadata#MyStoryPlayer).
MyStoryPlayer allows users to annotate multimedia objects and draw temporal connections by organizing items on a multiple timeline. In MyStoryPlayer items do not need to be played one after another, but can coexist on the same page simultaneously, integrating each other and thus giving the user the possibility to layer content in a more complex structure than that allowed by playlists and collections.

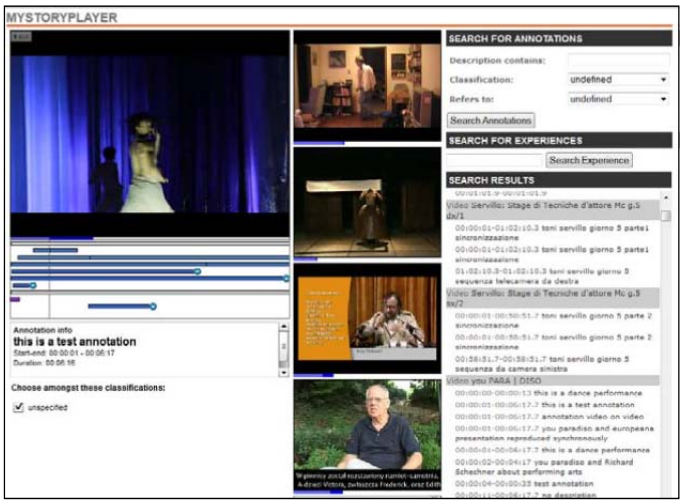


Figure: MyStoryPlayer interface

This tool also allows to synchronize audiovisual objects, which is of capital importance in the case of the multicamera shootings of performances, rehearsals, seminars and acting classes provided by ECLAP. When all the three angles perspectives (frontal, left and right side) caught by the camera are aggregated and played simultaneously, it is possible, for example, to analyze the acting technique of an actor by viewing on the same page and in the same moment what he is doing with is right and left profiles and with his whole body. As for the case of playlists and collections, to cluster items in a structured way is useful to reconstruct events and to prepare presentations or multimedia essays on a certain subjects. In the educational environment, MyStoryPlayer allows teachers to prepare dynamic lessons showing images, texts, audio and video recordings, moreover, annotations can be added on the timeline and displayed during a specific time interval.

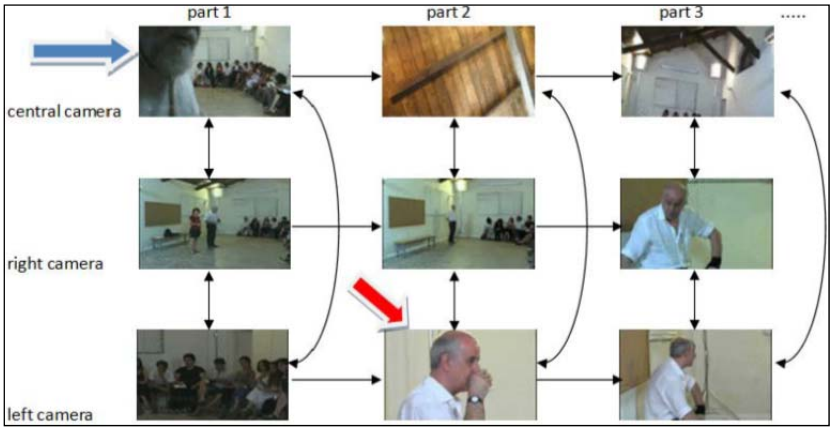


Figure: Reconstruction of an event through MyStoryPlayer

MyStoryPlayer do not only allows multiple contemporary views but also multiple choices on what should be enhanced and put on the foreground: each time the same structured content is replayed, users can view in different ways, performing a new experience, which can be saved and shared with other users, thus giving teachers the opportunity to reuse and enrich their colleagues' learning objects and students to access the didactic content.
The semantic connections can be visualized through the Social Graph, while from a specific page it is possible to explore the network of relationships among audiovisual content defined by using MyStoryPlayer, as shown in the figure below, where two different views are available: by clicking on them, users can access the corresponding interactive page, where they can drag and drop a video to see its relationships with the others.

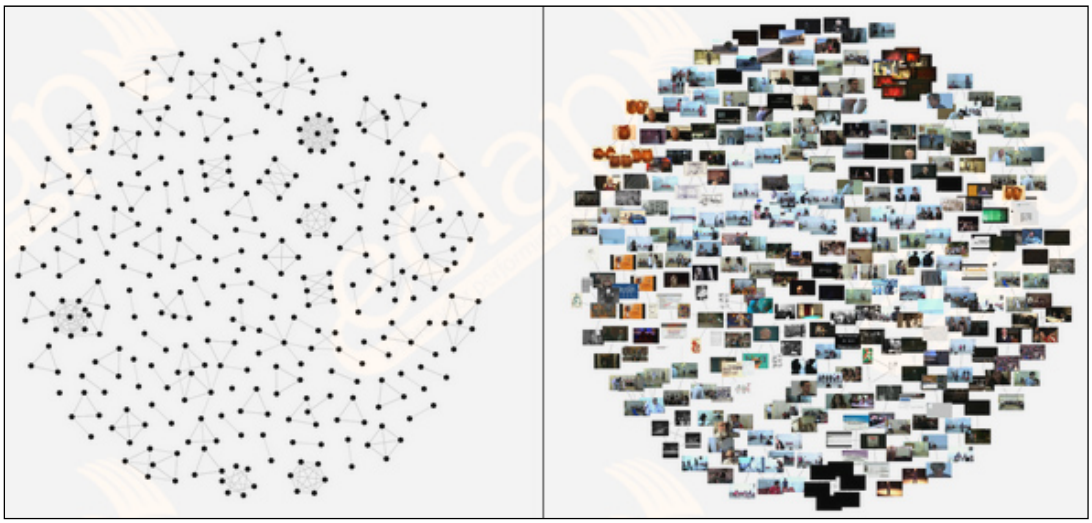


Figure: Relationships among audiovisual content

3.5.2 Social Graph

The Social Graph tool is the second ECLAP tool that is promoted by EUROPEANA (http://pro.europeana.eu/web/guest/thoughtlab/new-ways-of-searching-and-browsing#SocialGraph). Through the Social Graph it is possible to get an immediate visual representation of all the items and events connected to an object through all kind of different relationships (see the next figure). This interactive application aggregates related objects and collections, dynamically showing each connection through arcs and declaring the type of relationship through nodes. The user can decide which kind of clusters and relationships to explore by ticking boxes which can open or close the existing connections built on the basis of people (Creator, Colleagues, Administrators, Groups, Writer, Group Member), events (Annotations, Publications, Comments, User's favourites, Taxonomy) , related content (Collections, Object List, Related Objects) and associated locations identified as LOD via Geonames, allowing the navigation into the structure of the structure of the geonames entities. This way the item is rapidly contextualized in respect to other items, but also to the taxonomy, annotations and comments. Moreover, it is possible to view all the events related to the ECLAP lifecycle of the resource, for example to know who published it and to which institution it belongs to. The basic idea for this navigation tool is to make the browsing experience more intuitive and associative, helping the user to find new connections within the content aggregation and with other users[21].

[21] For further details please visit: www.eclap.eu/116088

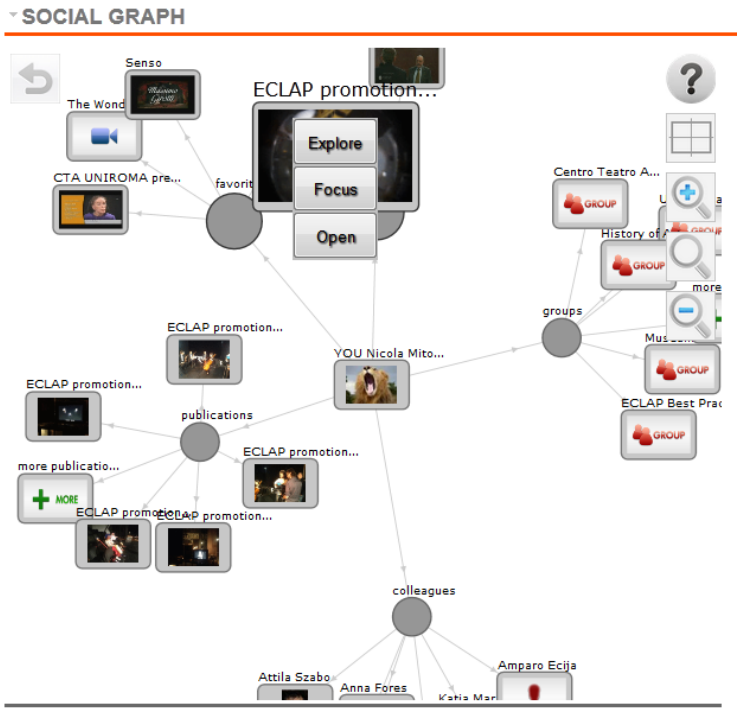


Figure: Social Graph

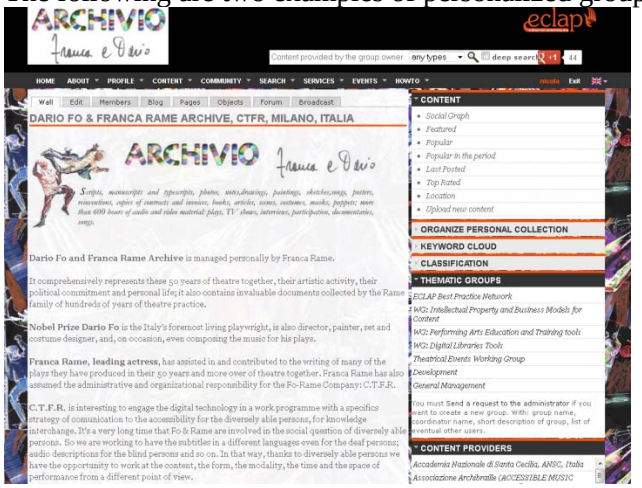
3.5.3 Group Design

The Group Design functionality allows group administrators to personalize the look and feel of the pages of the group/channel.

The following personalization can be done by using the group design:

- modify the color background of the group pages,
- set images as background of the pages,
- set the opacity of the blocks composing the pages,
- upload logo of the group/channel
- set the target of search

The following are two examples of personalized groups.



A user manual is available on the portal explaining to this functionality and the use. It is reachable by clicking on following link: http://www.eclap.eu/109843.

3.5.4 Content Organizer

According to the assessment activity performed and illustrated in the previous section, users are strongly interested in accessing the ECLAP portal and services by using mobile devices. This functionality is a real possibility to exploit the ECLAP services for leisure and entertainment that is provided by using the ECLAP mobile tool, the Content Organizer.

The Content Organizer is a tool that allows users to access and download content from the ECLAP portal. Once the content is downloaded the user can manage his personal collection of content on the mobile device, search content, browse, get information, etc. The supported mobile devices are iPhone, iPad, iPod, Android and Windows Phone 7. Some differences are available on the different platforms. In the most powerful version, the Content Organizer may organize and play ePub files, video, audio, cross media content, images, pdf, etc, may start to download directly by reading QR codes (available as technical metadata of each content item), may access content via GPS locations, may allow to upload content directly from the mobile device, etc. It can be used to:

- **iPhone/iPad, iOS**, Content Organizer: the tool is freely available in the App Store (search for Content Organizer). The Content Organizer for iOS is the most powerful: it is capable to download, collect, search and play with ePub, video, audio, documents, cross media content, images, pdf, etc.; may start to download from QR (available as technical metadata of each content item), may access content via GPS locations, may permit upload of content from the mobile, etc.
- **Windows Phone 7**, Content Organizer: the tool freely available on the Microsoft MarketPlace (search for Content Organizer). Additional information can be obtained from the following links for:
    - Italian access page version: http://www.windowsphone.com/it-IT/apps/ef4c898d-206a-47b2-99f9-11b0d47b6b36
    - English access page version: http://www.windowsphone.com/en-US/apps/ef4c898d-206a-47b2-99f9-11b0d47b6b36
- **Android**, Content Organizer (that actually can be requested by sending an email to info@eclap.eu, but will be available on the Android Market in the next future)

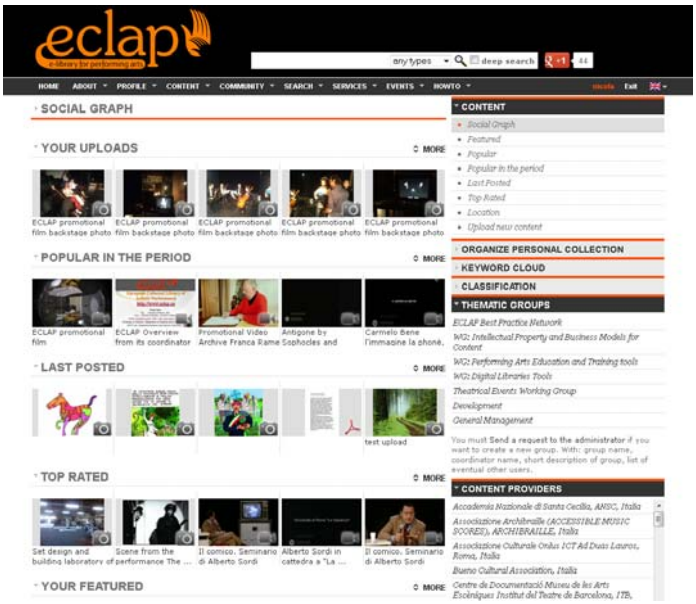
Content Organizer for windows Phone 7

Content Organizer for Android devices

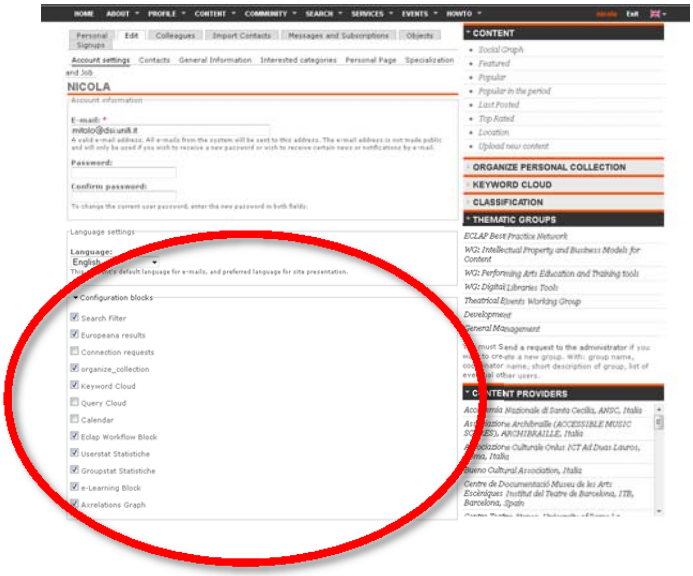
Also a version for Windows Mobile 6/6.5 has been realised in the past, but since this system will be abandoned, this version is deprecated.

3.5.5 Personal Homepage

When the user accesses to the ECLAP platform, the personalized home page of the user is opened. It can be fully customized with the order of segments, suggestions, content lists, etc., to be presented and with the possibility of closing them, including the closure of the Social Graph. Most of the users appreciated the Social Graph, so that we left them the possibility to close it on/off. The selection and the movement of section is very easy and it is based on drag and drop. The configuration is remembered from one section to another and from one computer to another (see the figure below).



Additionaly, the users can also define which block on the right side they would like to have. The selection can be performed on their profile editing page.



3.6 Usability Tests in 2013

At the end of February 2013 a survey about ECLAP pros and cons has been activated and promoted to all ECLAP partners with the aim to collect comments both negative and positive. The idea at the basis of the survey was that for each positive comment, partners should have also to provide a negative one and vice

versa, with the main aim to see what is commonly taken as positive aspect of ECLAP and what is commonly regarded as negative aspect.
At the same time an analysis has been done with the support of the Communication Strategies Lab (http://www.csl.unifi.it/) of the University of Florence with the aim to provide a usability assessment and improvement of the ECLAP portal. The methodology used to assess the usability of ECLAP has been selected to ensure as a result concrete indications of possible barriers to be solved for the better use of the content and functionalities. The goal is to gather as much information as possible about the possible problems in the ECLAP use, avoiding great upheavals of the architecture and technology. Operationally, the usability assessment has been performed in two successive phases:
Inspection (usability inspection): a working group of the CSL Lab identified possible problems related to non-adherence to established practices and in this way have been identified some potentially critical aspects;
Test (usability test): done in the lab with potential "real" users (but without previous experience in ECLAP).
The tests carried out are classified as qualitative-informal, but they have provided interesting indications on various aspects of the platform ECLAP.
At the end of the usability testing a complete report has been produced containing all the details of the activities performed and the results. The report is available in Italian and can be downloaded from the ECLAP portal at the following link: http://www.eclap.eu/155829
In the following sections only the major results are reported.

3.6.1 What ECLAP Users like about

This section reports the major indications received by the users during the usability assessment and in the survey submitted to partners. The following is also constantly updated on the ECLAP portal in the following page: http://www.eclap.eu/121817

ECLAP Content and metadata model, search, they like:

- very good information related to all performance art science,
- amount of materials available,
- many great content providers from all over Europe!
- magnificent content,
- unique possibility to work with performance related content.
- trans-nationality of the content is fantastic
- you can see by using flags in which language(s) metadata of an object is available
- Europeana widget: it is well-designed and does not distract users from the ECLAP page, while at the same time it gives them the chance to explore other online heritage as well

ECLAP Infrastructure, they like

- stability and performance of the website,
- stability and reliability of the site.
- capability of personalize which configuration block you want to use.
- Mi piace l'approccio in stile social network a web application sofisticate da SEO come l'ingestion di metadati e di contenuti, la possibilità di creare vere community, la continua ricerca e progettazione
- searching content via the location interface which allows to look for multimedia, or any other kind of information, based on the location of the object that is searched.
- the portal is available in so many languages
- content through its graphical interface.
- you can minimize the blocks on the right-hand side of the screen.
- the new home for user, very good, compliments!!,
- overview of the promoted content

ECLAP Content Tools, they like

- metadata schema is very good and complex
- Social Graph application which allows the user to intuitively parse through the ECLAP's
- sustainable access and quick responses to search results
- digital library tools I enjoy

- functionality of IPR Wizard and Metadata Panel
- small icons to show directly the content type is useful
- possibility to change the quality of every video, very useful
- MyStoryPlayer is a great tool for education.
- archiving/showing so many of different metadata elements is great.
- how related objects are visually presented on the page of a content item.

ECLAP Mobile, Content Organizer, they like

- the possibility of organizing the content on a mobile device
- the intuitive form of the ECLAP's tablet applications that allows users to organize their content as they wish based on the Objects and Catalogs sub-applications.

ECLAP Networking, they like

- networking facilities and social graph
- the possibility for users to interact with each other and with the content is great.
- That's great that ECLAP has a social function and you can meet people using the portal
- the best part of the site is the best practice network it's just great!!!

These comments have been directly written by ECLAP users in the last survey. Users are invited to leave comments directly on the web page!.

Please also see the page about what the ECLAP user dislike and what we have done to solve those problems, consulting the ECLAP page on Solved and Pending Problems and Desiderata: http://www.eclap.eu/130961. There, there is space for users' desiderata and comments to improve ECLAP, as reported in the following section.

3.6.2 ECLAP solved and pending problems and desiderata, FAQ

This section reports the ECLAP recently SOLVED problems. A web page has been published on the ECLAP portal that is constantly updated. The page is available here: http://www.eclap.eu/130961

The **following comments reported in italics** have been collected during user trials and tests, and from a past soundage. The texts are mainly reported as they were written and **DO NOT REFER to the portal in the present version** but to the version at the time of testing.

- *The home page of the user is rigid and the social graph is not needed, If the options like social graph, calendar etc. are necessary it should be very easy to disable them. The home page of the person should be more personally shaped.*
    - SOLVED: The Home Page of the user can be fully customized with the order of segments, suggestions, content lists, etc., to be presented and with the possibility of closing them, including the closure of the Social Graph. Most of the users appreciated the Social Graph, so that we left them the possibility to close it on/off. The selection and the movement of section is very easy and drag and drop. The configuration is remembered from one section to another and from one computer to another.
    - The users can also define which block on the right side they would like to have. The selection can be performed on their profile.
- *Animated icons for video are distracting, too many impulses when enter the portal: too many things move and change giving the impression of chaos.*
    - SOLVED, static icons are now the only available. The animated icons for videos have been removed.
- *See preferably with larger font size for a better reading experience (for example for seeing-impaired visitors) and less distracting elements,*

  - SOLVED: the whole portal page can be scaled up and down in fonts by pressing button Ctrl and the SCROLL. ECLAP is fully compliant on this directive of accessibility and compatibility with browsers.
- *the address of content items/pages in the address bar of the browser shows lengthy names. Is there a way to create a field in the meta data editor to bypass this method and create the opportunity to overrule this name*
  - SOLVED: a short link can be taken from the metadata block on right side in the form: **http://www.eclap.eu/92987**
  - ALSO: a short link to content of different kind can be in the form of http://www.eclap.eu/urn%3Aaxmedis%3A00000%3Aobj%3Ab9076a6c-23f1-42d6-af73-9b6f97599eeb
- *The registration process seems to be too complex, the captcha not really easy to understand, the fact that the registration is performed in two step and there is the need of clicking in the received email to confirm the registration is not clear.*
  - SOLVED: the captcha has been simplified, larger fonts and easier to be read.
  - COMMENT: the registration process is going to be simplified, with better and more evident comments about the steps to be performed, and the fact that the user has to respond to an email to confirm the registration process. All the comments and alerts have to be more visible and clear for the users.
- In most cases, important messages to the users are reported in normal text on top of the central page. They are not much visible to the user that need to be informed of relevant action that he has to do or that have been done successfully for him.
  - SOLVED: a new modality of messaging to the user from the portal has been created. BLUE Rounded boxes are shown to inform the user and help in getting the message immediatly. They automatically disappear when context is changed.
- *The presentation of metadata elements needs to be reconsidered, turning to a focus on the few most important ones. Suggestion: skip the different tabs, chose two presentations: an simple, elementary one plus a complete overview of all metadata together.*
  - SOLVED they have been restructured according to the indication of users
- *The search capabilities for content sometime seems that one searched and the results are not shown.*
  - SOLVED: now every time one perform a query from the frontal text box or by using a preformed query (such as, clicking on featured, etc.) the page is aligned/scrolled to show precisely the point in which the search results are shown.
- *the logos on the home page are making a very bad impression. They should be hidden in ABOUT or PARTNERS section.*
  - SOLVED. The logo of the partners are: http://www.eclap.eu/3578
- *The Automatically Translated texts should be only shown in English. Multilinguism needs to be improved or removed from the user interface and kept in the infrastructural depths of the search functionality.*
  - SOLVED, since all the texts in the user interface has been validated by language experts.
  - SOLVED, the query expansion generate the translations to increase the precision and recall of query performed
- *Make it easy possible to separate trusted content/metadata from user generated content/metadata.*
  - SOLVED, at the moment we do not have any user generated content presently. All the content has been provided by qualified content providers. All the user generated content provided would be assessed and passed to the portal only if approved.
- *All logos should be moved to information about project/partners or down to the bottom of the page. The worse is that all logos are visible not only on the main page but also when i work directly with content material. It makes my work as researcher very inconvenient.*
  - SOLVED: the partner logo have been already moved.
  - The remaining logos are going to be moved on the bottom. We cannot remove all of them since the logo of Europeana, European Commission and ICT are mandatory for all EC projects. Moreover, we have also some logo as credits to avoid paying licensing.

- *The results of the query sometime seems to the wrong. For instance if I search in the frontal search box by wiring: Alberto Sordi. The results obtained contain also record that do not perfectly match.*
    - COMMENT: this is correct since when you write two words Alberto Sordi the system works like Google. This means that first you will get record with both keywords Alberto and Sordi, then those that contains only Alberto and only Sordi, then those that contains similar words, such as: Albero, Sardi, Surdi, Aleberto, etc... for a total of more than 6000 results. If you would like to search for a perfect match, please write Alberto AND Sordi, thus obtaining only 1600 records now, or even less if you search for the precise string match "Alberto Sordi".
- *The interface of the portal is too heavy and cluttered, clean up, too match functionality which sometimes makes it not user friendly*
    - COMMENT: we hope to have solved it. The number of menu subitems has been strongly reducing removing duplications and the number of functionalities esposed at the first level into the menu. Those that have been removed from the menu items are now acessible only in the contextual menus.
- *rich content & meta/data editor for content owners, although a quick and extended mode would improve and simplify/fasten uploading experiences. Too many functionalities presented at once: the drop-down menus on the home page alone contain more than 42(!!!!) options. Most people will get lost on ECLAP immediately.*
    - COMMENT: try the fast upload interface. http://www.eclap.eu/drupal/?q=ugc/fastupload
- *black and orange background of ECLAP portal.*
    - COMMENT: the colours have been identfied by a large soundage. Who participated selected the shape and the combination of colours among 8 different solutions. A new round of a soudage would be accessible for the next renovation.
- *The time to see passing content from ECLAP to Europeana is too high.*
    - COMMENT: it does not depend on ECLAP. Europeana is taking the content once per month. So that it may depend on the day in which you provide the content.
- *MyStoryPlayer you cannot edit your annotations. You need to delete them and then start over what makes work more difficult.*
    - SOLVED: you can delete your annotations, you can save your expericiences: http://www.eclap.eu/3748

- *The presentation of the collection content needs to be separated from other content, like project documents. In the structure and handling of documents a clear distinction should be made between heritage collection files and project files. This will improve the search functionality and will result in a better match for users only searching for collection content and not management files.*
    - COMMENT: this has been considered a strong fact from other users. Some of the project content has been also requested by the EC to be posted on Europeana.
- *The institutions and workgroups are shown as the same thing when looking at groups. It's really hard to find your way when you have all groups mixed up and you don't know the difference as a person from outside the project.*
    - SOLVED: the groups have been divided in two kinds: thematic and content providers, the users can see those list on distinct right side blocks.
- *The splash page is confusing and distracting, in the end it will not result in happy users. Users (new users we guess) should land on a nice, clean starting page with some visual entry points to the ECLAP collections, in which they can also see there is a possibility to register and interact with other performing art lovers.*
    - COMMENT: if you are a new user, from the splash, you have the possibility of selecting one of the 5 most relevant issues to understand more about ECLAP. Among them also the promotional video of ECLAP has been placed, that give you an overview of ECLAP aims. It is strongly selected.

- COMMENT: if you are a returning user, and if you saved the user name and password you land directly on your customizable personalized home page for a personal experience and work on your dedicated and preferred views.

ECLAP desiderata under consideration and work to be done:

- *the length of the texts (referring to web pages) should be reduced*
  - COMMENT: it is one of the next actions to be done.
- *I think there is no documentation for the tablet application. I believe that apart from the video tutorial, there should also be a documentation of the application. Also the video tutorial should be sliced into parts explaining one for each of the sub-applications that it contains.*
  - COMMENT: for the manual of the content organizer see the general ECLAP manual and in particular from page: http://www.eclap.eu/94220
  - A Specific user manual is going to be produced soon.

If you would like to see also what the users like of ECLAP see page: http://www.eclap.eu/121817
If you would like to send other comments and desiderata please contact info@eclap.eu or leave a comment to this page.

4 Conclusion and recommendations on leasure and entertainment aspects

According to the analysis performed during the activities of WP6.4 related to the valorization of ECLAP services, it emerged that some of the services provided by ECLAP are really useful. This is also supported by EUROPEANA that promotes two ECLAP tools (MySotryPlayer and Social Graph).
Particularly it is possible to list the following services of ECLAP for leisure and entertainment:

- promotion of performing arts events, like festivals and other important events that could be valorized by using innovative services like QR-codes and proximity services via GPS for mobile devices, for example for the download of related resources;
- WebTV with a TV like interface by using the *MyStoryPlayer* annotation tool, with a restyle of the user interface to simplify the user experience;
- Museums and archives for cultural heritage valorization for cultural traveling. Also in this case ECLAP services could enhance the user experience thanks to the use of services like QR-codes and GPS for mobile;
- Social Media for networking and collaboration, to stimulate the knowledge sharing among non-professional users;
- Content organizers for mobile devices (available for Androids, iPhone/iPad and Windows Phone 7), useful not only for education and e-learning, but also for entertainment thanks to the possibility for users to access and download resources from the portal directly in their devices, for on-line and off-line access to the content.
- The Group Design functionality, that allows group administrators to personalize the look and feel of the pages of the group/channel.
  The Social Graph tool thata provides an immediate visual representation of all the items and events connected to an object through all kind of different relationships

To really enhance this kind of services many activities have been performed in the last year, on the basis of the usability tests and analysis perfomed.

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