

## ECP 2008 EDU 428016

### OpenScout

# D6.2.3 Evaluation Report on Prototype and Use Case Validation

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**eContentplus**

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<sup>1</sup> OJ L 79, 24.3.2005, p. 1.

## Table of Contents

<b>1</b>	<b>INTRODUCTION .....</b>	<b>3</b>
<b>2</b>	<b>PROTOTYPE AND USE CASE EVALUATION .....</b>	<b>4</b>
2.1	FORMATIVE EVALUATIONS.....	4
2.1.1	<i>Demonstrations and Workshop at the 2011 EFMD Annual Conference.....</i>	5
2.1.2	<i>User Content Tagging Preferences.....</i>	6
2.1.3	<i>SPK Demonstrator.....</i>	6
2.1.4	<i>Tool Library OER11 Workshop.....</i>	7
2.1.5	<i>Tool Library ED-MEDIA Workshop.....</i>	8
2.1.6	<i>Usage Scenario Prioritization.....</i>	9
2.1.7	<i>Adapting Learning Content for Higher Education (ongoing) .....</i>	9
2.1.8	<i>Competence Tagging (ongoing).....</i>	10
2.2	PILOTS.....	10
2.2.1	<i>Portal version 1 Usability Pilots 1 - 4.....</i>	11
2.2.2	<i>Portal version 2 Usability Pilots 1 - 2 .....</i>	12
2.3	RESULTS AND IMPROVEMENT RECOMMENDATIONS .....	13
2.4	CONCLUSION AND FUTURE PLANS.....	18
<b>3</b>	<b>EXHIBIT 1 – USABILITY PILOT QUESTIONNAIRES AND TASK SCENARIOS.....</b>	<b>20</b>
<b>4</b>	<b>APPENDIX A: FULL PILOT REPORTS.....</b>	<b>27</b>
4.1	PORTAL VERSION 1 – FINAL REPORT – COMBINED DATA .....	27
4.1.1	<i>Portal version 1 Usability Pilot 1 – ESCP Europe.....</i>	37
4.1.2	<i>Portal version 1 Usability Pilot 2 – JYU .....</i>	40
4.1.3	<i>Portal version 1 Usability Pilot 3 – VMU Teachers .....</i>	41
4.1.4	<i>Portal version 1 Usability Pilot 4 – VMU Students .....</i>	43
4.2	PORTAL VERSION 2 – FINAL REPORT – COMBINED DATA .....	46
4.2.1	<i>Portal version 2 Usability Pilot 1 – ITD Teachers.....</i>	56
4.2.2	<i>Portal version 2 Usability Pilot 2 – ITD SME .....</i>	57
<b>5</b>	<b>APPENDIX B: FULL EVALUATION REPORTS.....</b>	<b>59</b>
5.1	DEMONSTRATIONS AND WORKSHOP AT THE 2011 EFMD ANNUAL CONFERENCE.....	59
5.2	USER CONTENT TAGGING PREFERENCES.....	66
5.3	TOOL LIBRARY OER11 WORKSHOP .....	71
5.4	TOOL LIBRARY ED-MEDIA WORKSHOP .....	73
5.5	OPENSOUT SCENARIO PRIORITIZATION.....	75
5.6	ADAPTING LEARNING CONTENT FOR HIGHER EDUCATION (ONGOING) .....	84
5.7	COMPETENCE TAGGING (ONGOING).....	85

# 1 Introduction

The main role of Work Package 6 in the OpenScout project is to define and realize validation and evaluation scenarios to enable feedback, experience exchange and optimisation of the OpenScout prototype. The objective of this deliverable is to report on the OpenScout project prototype evaluation and use case validations undertaken from March through August 2011. Initial evaluation results through February 2011 were reported in D6.2.2. These evaluations provided key user-based development guidelines and recommendations to the OpenScout project. Results from the evaluations are circulated throughout the project, and Technical Partners use the feedback provided to them in the evaluation and pilot reports presented here to improve the prototype.

The overall vision of the OpenScout project is to accelerate the use, improvement and distribution of open content in the field of management education and training. In particular, OpenScout aims to:

1. **Provide federated, skill-based search and retrieval web services within LCMS systems and social network platforms to end users** increasing the use of open content within LCMS systems as well as opening the access directly within web 2.0 social network platforms. The searched and retrieved content will originate from a large pool of different content repositories with various types of content and will be useful for both formal and informal learning.
2. **Support user-improved content** integrating a number of novel content management and use models with a high potential for cross-cultural/national transferability, and building an open community of providers. In this community, users are enabled and supported to localise, adapt and improve existing materials and re-publish them. This will lead to an exponentially increasing amount of contents and to new solutions for many domains.

In order to achieve these aims, OpenScout relies on a user-centric approach. In particular users are involved from the very beginning of the project to give input to the different phases of prototype development and influence design decisions. Thus important criteria of project success include not only the user's satisfaction with the final platform, but also our ability to obtain relevant feedback at all stages for the technical work packages.

The report and its outcomes are circulated throughout the consortium. Actions for improvement will be decided during the OpenScout Consortium meeting in September 2011 (Palermo).

The remainder of this report is structured as follows. In the first section, the formative evaluations and pilots are introduced and summarized. This is followed by a section summarizing the recommendations for improvement based on all pilots and formative evaluations to date. Finally, the future evaluation plans are presented. Full pilot and evaluation reports can be found in the Appendix.

## 2 Prototype and Use Case Evaluation

In D6.2.1 (Refined Evaluation Plan), we described in detail how we planned to organise the continual provision of user feedback regarding the design of the OpenScout prototype.

In particular, we are collecting user feedback during three overlapping Evaluation cycles:

**Cycle 1 – Formative Evaluation:** The goal of formative evaluations is to guide the design process. Formative evaluations began in April 2010. Since development work continues throughout the project, formative evaluations continue to be undertaken on new functionalities even when some parts of the system have been revealed to external users (as in Cycle 2 – pilots). Feedback from users during demonstrations and workshops is also collected as part of the formative evaluation process.

**Cycle 2 – Pilots:** The goal of the pilots is to provide developers and project management with user feedback on the working prototype. This user feedback is being used to improve the prototype. Partners began running Pilots with the prototype in real contexts in March 2011.

**Cycle 3 – Large Scale Trials:** In this cycle, large-scale adoption and improvement, contents will be improved, adapted and localised by different user groups. Users will work with the learning contents and tools as well as evaluate further versions of the OpenScout prototype. Large-scale trials will take place once we are close to a final prototype version – we estimate this to be around April 2012.

The following sections summarize the results, the detailed results and validation scenarios are documented in the Annex.

### 2.1 Formative Evaluations

Formative evaluations, such as demonstrations and workshops, are used to provide user feedback about the portal in general. Formative evaluations are also organized to respond to requests from technical work package leaders regarding specific functionality issues.

During the period March – August 2011, 8 additional formative user evaluations were carried out:

1. Demonstrations and Workshop at the 2011 EFMD Annual Conference (WP1, WP4, WP7)
2. User Content Tagging Preferences (WP1)
3. SPK Demonstrator (WP1, WP4)
4. Tool Library OER11 Workshop (WP3)
5. Tool Library ED-MEDIA Workshop (WP3)
6. Usage Scenarios (WP1, WP2, WP3, WP5)

7. Adapting Learning Content for Higher Education (WP3) - *ongoing*
8. Competence Tagging (WP2) - *ongoing*

The objective and results of each formative evaluation is summarized in this section. These evaluations provided ongoing feedback about the OpenScout portal to developers and project management. More details about each evaluation can be found in Appendix B.

### *2.1.1 Demonstrations and Workshop at the 2011 EFMD Annual Conference*

The objective of this evaluation was to obtain feedback from external users of OpenScout in order to improve web portal, services and recruitment effort. The target group addressed were participants in the EFMD annual conference, in general people interested in management education and development and in particular, EFMD members, companies, educational institutions specialized in management education and other associations.

During this conference OpenScout had a stand, where two people were demonstrating when visitors were interested. One partner demonstrated OpenScout while the other documented users' comments in the Demo Evaluation Observer Template. The demonstrators mainly worked with a particular search scenario which demonstrated all working components of the current OpenScout portal. Feedback was obtained from 39 potential users from Higher Educational Institutions (deans and directors of business schools, directors of international relations offices of business schools, directors of MBA programmes, teachers) and company representatives.

All participants were interested in OpenScout. Most of the comments were in the form of questions showing that the people are not familiar with the concept of open content and have reservations especially about the copyright issues. Some of the users expressed a desire to collaborate with the OpenScout project but wanted to discuss it at their institution first before contacting OpenScout with concrete ideas.

Table 1: Summary of the feedback from the EFMD Annual Conference

<b>Positive Comments</b>	<b>Negative Comments</b>
<ul style="list-style-type: none"> <li>• It is interesting for us, as the school wants to join innovative initiatives.</li> <li>• Can help you prepare your lectures and find new ideas.</li> <li>• Interesting</li> <li>• Very interesting partners</li> </ul>	<ul style="list-style-type: none"> <li>• Not a lot of content yet</li> <li>• Content only in English</li> <li>• Can't make "complex" searches like "innovation in management"</li> </ul>

This information was circulated to all partners involved in the web portal services and recruitment effort; in particular, the technical partners who are currently working on

improving the search functionality. As more repositories are added to OpenScout, the amount of relevant management content and non-English content will increase.

### *2.1.2 User Content Tagging Preferences*

The objective of this evaluation was to evaluate users' preferences for automatic, expert and user-generated tags of learning objects. Feedback was obtained from 115 participants (mainly students) via an interactive web interface that presented summaries of learning objects and tags.

There were two parts to the evaluation. The goal of the first part was to compare the automatically generated tags against the ones provided by experts. In the second part the participants provided their own tags, and these were compared to the expert and automatically generated tags.

Participants showed a clear preference for tags that are automatically added. In addition, participant generated tags overlapped 38.4% with automatically generated tags, and 20.7% with expert tags. Thus, it appears that automatically generated tags are more relevant to the participants. An important outcome of this evaluation is that automatically generated tags are, in general, more descriptive and more useful for the learners than experts' tags. Additionally, it is reasonable to assume that these learners, when searching for one of these documents would (with a higher probability) use a tag that was automatically generated rather than the experts' tags.

The evaluation of the automatic tagging method for business and management learning resources provided valuable feedback about the usability of a service that can automatically enrich learning resources metadata. The evaluation has proved that the automatic generated tags may help the students to search, browse and find relevant learning resources. Though the results are very optimistic, it is necessary to run further evaluations to analyse different strategies and to understand the feasibility of deploying the automatic tagging service for end-users in the OpenScout Portal. For these reasons, it has not yet been implemented in the OpenScout portal.

### *2.1.3 SPK Demonstrator*

The main objective of this evaluation was to validate the usefulness of the OpenScout portfolio for the target group of SMEs.

An OpenScout demo was given at the SPK booth in Brussels at the "PLATO Vlaanderen Happening" in the Flemish Parliament in May 2011. During the happening two OpenScout people were present to run and show the demo and to attract people to the booth. About 10 people attended the demo, all of them managing directors of local Flemish SME companies.

Major feedback regarding requirements from this audience was that a tool of this kind must help in solving business problems by providing to-the-point practical and short information modules with examples at SME level. SMEs do not want to study big theories and go through lengthy texts or interactive modules that take hours to complete. It must also be made clear that OpenScout can help them solve 'business problems' rather than 'management problems'. The problems they have are

business-related, acquiring more management competences is for them a means of overcoming the problem.

A possible positioning could be “Looking for ways to increase your turnover? Do you want more response on your marketing campaigns? Wondering how to integrate social media in your communication policy? Need to write a business plan for raising more capital but don’t know how to start? OpenScout offers a wealth of to-the-point learning resources that can help you solve these problems while improving your managerial skills”. However, this positioning will hold strong only if the resources are available in OpenScout.

The lesson learned from this evaluation is that if OpenScout wants to attract SMEs, the available resources in the portal must offer answers to business problems. Short modules, containing practical tips and tricks, checklists, step-by-step guidelines, and examples how other SME’s have solved the problem are needed.

### 2.1.4 Tool Library OER11 Workshop

The overall goal of this workshop was to gather user feedback about which tools should be provided in OpenScout for finding and adapting the learning content available in the portal. The workshop was organized by WP3 in order to populate the OpenScout tool library with tools recommended by members of the Open Educational Resources (OER) community. Towards this end, representatives from UK Open University delivered an OpenScout session at the OER 2011 conference (<http://www.ucl.ac.uk/oer11/>). This conference attracts a large number of researchers and educators that are interested in exploring the impact of OER on Higher Education.

The workshop was attended by approximately 50 conference delegates, consisting of educators and researchers in the area of Open Educational Resources (OER). Two partners from the UK Open University demonstrated the OpenScout tool library as an open online environment for sharing OER adaptation practices and experiences. The participants were then invited to share their tools for finding and adapting OER. This input was captured in the tool library and is available at: <http://openscout.kmi.open.ac.uk/tool-library/pg/pages/view/2111/>. Table 2 list the tools proposed by users and discussed during the workshop.

Table 2: Tools discussed during the OER11 Pilot

Tools for finding OER	Tools for remixing and adapting OER
<ul style="list-style-type: none"> <li>• Folksemantic</li> <li>• XPERT (Xerte Public E-learning ReposiTory)</li> <li>• Jorum</li> </ul>	<ul style="list-style-type: none"> <li>• OER Glue</li> <li>• OERbit</li> <li>• LabSpace</li> </ul>

The workshop provided us with useful feedback from members of the OER community regarding the adaptation of OER, and which tools they find most useful.

Participants populated the tool library with new tools for finding, remixing and adapting OER. Contacts were also made with participants interested in contributing further to project activities.

The key outcome is how to use the tested tools for the adaptation of resources and incorporate the feedback into the recommendation mechanism. This is addressed in the development process of WP3.

### *2.1.5 Tool Library ED-MEDIA Workshop*

The goal of this workshop was to collect input regarding tools for finding and adapting OER from members of the Technology and Enhanced Learning (TEL) community. The workshop was held at the Educational Media and Technology (ED-MEDIA) 2011 conference (<http://www.ace.org/conf/edmedia/>). Approximately 20 educators and researchers in this area of technology enhanced learning participated in the workshop. Two partners from the UK Open University introduced participants to the notion of social networking for supporting the collaborative adaptation of OER and showcased the OpenScout tool library as a proof of concept. The participants had a chance to discuss the challenges involved in localising, adapting and improving existing educational materials on the web, as well as share OER tools and repositories through the tool library. The feedback collected from the participants of the workshop was captured in the tool library and is available online at: <http://openscout.kmi.open.ac.uk/tool-library/pg/pages/view/2552/>. Following tools for finding OER were proposed by users and discussed.

- Humbox
- Ariadne
- LORO
- GLOBE
- KLASCEMENT

The workshop provided WP3 with an insight into the views of the TEL community regarding finding and adapting OER. The participants discussed the challenges involved in these tasks, populated the tool library with their preferred tools, and provided recommendations about OER repositories. The workshop organizers also established contacts with attendees interested in using OpenScout in the future for research and educational purposes.

The key outcome is how to use the tested tools for the adaptation of resources and incorporate the feedback into the recommendation mechanism. This is addressed in the development process of WP3.

### *2.1.6 Usage Scenario Prioritization*

As a part of our ongoing development efforts, it was necessary to plan and prioritize the upcoming services and functionalities that will be provided through the OpenScout portal. As many WPs are working on different services, this formative evaluation gives a user perspective on each component that will be delivered through the portal. This evaluation did not include widgets to external LCMs and similar.

Each development related WP (1,2,3,5) described their services and functions in a scenario format. The focus was on upcoming services and functions that were not yet in the portal. There were 37 scenarios which included:

- Publishing features
- Competence services
- Tool library
  - Smart tool recommendations
  - community features
- Recommendation functions
- Accessibility scenarios

These 37 scenarios were then rated by user partners for their usefulness and priority. The prioritized list of scenarios are described and shown in the Appendix. The scenario users' considered highest priority is the publishing scenario. As of August 2011, this evaluation had just been completed. OpenScout developers have been provided with this user feedback and will have to balance it with the services and deadlines set out in the DOW.

### *2.1.7 Adapting Learning Content for Higher Education (ongoing)*

The main goals of this formative evaluation are (1) to gather information from teachers from Higher Education institutes across Europe about their experiences regarding the adaptation of learning and training content, and (2) to gather feedback from these teachers on their experience using the discussion group in the OpenScout tool library.

The evaluation started on July 2011 by extending an invitation to teachers of the University of Sofia. A focus group was then setup for them in the tool library (<http://openscout.kmi.open.ac.uk/tool-library/pg/groups/2620/higher-education-teachers/>). Through this group, we have started collecting the input of participants around the following topics:

1. What tools or software do you use for adapting learning material? E.g., This may be desktop software or online services for converting, modifying, collaborating etc.
2. What is your strategy or procedure for adapting learning materials? Does your institution have policies regarding formats, software or reuse of materials that influences your choices?

3. What type of support do you have available when adapting learning materials? How could different support make adaptation easier? E.g., from colleagues, technicians, social contacts, external communities etc.

This evaluation is ongoing and final results will be presented in the next deliverable.

### *2.1.8 Competence Tagging (ongoing)*

The goal of this of the competence tagging evaluation is to examine the usefulness and usability of several services that deal with competence tagging of learning resources in OpenScout. Furthermore, in this way several learning resources will be enriched with metadata that can be used for further evaluation studies within OpenScout. This evaluation is run online by OUNL. Participants are a researchers, students and teachers both internal and external to the OpenScout project.

The evaluation consists of 6 steps.

Steps 1 & 2 – competence-tagging: For both steps participants tag 20 learning resources concisely with one or more competences from the competence taxonomy, which has been constructed within OpenScout and the European Qualification Framework (EQF). Participants then fill in a questionnaire with assertions on competence-tagging.

Steps 3 & 4 – purpose-tagging :For both steps participants tag 20 learning resources concisely with one or more purposes for learners in studying this learning resource. Participants then fill in a questionnaire with assertions on purpose-tagging.

Step 5 – judge competence-tagging: Participants judge existing competence-tags for 20 learning resources, then fill in another questionnaire with assertions towards judging competence-tagging.

Step 6- judge purpose-tagging: Participants judge existing purpose-tags for 20 learning resources, then fill in another questionnaire with assertions towards judging purpose-tagging.

This evaluation started May 16<sup>th</sup> and is still ongoing. It was planned to run over 6 weeks (one task per week) but was very time consuming for participants who needed more time to complete the tasks. The current plan is to have the first general results by September 1st and the complete results by October 1<sup>st</sup>.

## **2.2 Pilots**

Pilots started in March 2011 when a first version of the portal suitable for external users became available. During the course of the project, pilots are being run in Universities, Business Schools, Research Centres, Vocational Training Centres, and Enterprises of various sizes. There are two core user groups, teachers and learners. As different aspects of OpenScout are interesting for and tested by the various user

groups, a mixed-methods design is being used for the pilots. Depending on the goal of the pilot and its context, different aspects of OpenScout are being evaluated and different methods such as surveys, interviews, focus groups, observations and log files are being used to obtain feedback from the users. Online surveys are being used whenever possible. In addition, most pilots provide a comparable set of background data on all pilot participants (such as age, sex, occupation, educational background, etc.) and information about the context of the pilot. The Pilot Evaluation Toolkit is described in D6.2.2 – Initial Evaluation Report.

D6.2.2 – Initial Evaluation Report, also describes the validation scenarios for the first pilots. The following Portal services and functionalities were tested on users between March and August 2011.

- Registering
- Logging in
- Search interface (simple keyword search, faceted search)
- Rating objects
- Commenting objects
- Tagging objects
- Evaluation of tools in tool library (*via formative evaluation*)
- Comparison of top-down and bottom-up competence tagging (*via formative evaluation*)

As of August 2011, pilots have been carried out on two versions of the portal. 51 users participated in the 1st beta version pilots in March 2011, and 38 users participated in the 2nd beta version pilots in July 2011. Pilot participants included teachers, students, researchers and SMEs. Pilots were run online. Both pilots followed the same core scenarios of registering, logging in, searching, rating, tagging and commenting. Pilot 2 had an additional search via filter scenario. First, participants completed a Pre-Evaluation questionnaire about themselves and their internet habits. Next, participants were requested to perform three simple tasks. Each task was followed by some questions. Finally, in the Post-Evaluation Questionnaire participant were asked to provide feedback about their overall satisfaction with the OpenScout portal. The questionnaires and task scenarios used in the Usability Pilots are shown in Exhibit 1.

### *2.2.1 Portal version 1 Usability Pilots 1 - 4*

There were 51 total participants in the first set of usability pilots. Participants were teachers and students from three different institutions: ESCP Europe (14), University of Jyväskylä (4) and Vytautas Magnus University (33). 98% of the participants study or have studied economy or management. All participants use the Internet daily, and 92% of participants know what Open Content means. The majority occasionally rate or comment about something (e.g. a book, a hotel, a video, a document) on the Internet. Most occasionally tag content on the Internet. A large number never upload

their own teaching/learning material to the Internet to share with others. Many search for management teaching/learning material (e.g. courses, documents, videos) on the Internet. While they are big users of social networking sites (e.g. LinkedIn, Facebook, etc.), many never contribute to online communities (e.g. forums, wikipedia, etc.).

Participants generally agree that it was easy to login and register, although some participants did experience problems. Problems included misunderstanding where to log in, some logged into the OpenScout site and not the OpenScout portal. Users also expected to receive an email confirming that their registration had been successful. A large percentage, 26%, disagreed that the number of resources found is sufficient and that they are easy to access. Many participants prefer other search engines to OpenScout. Only 60% believe that OpenScout provides more relevant material. Overall participants agree that it is easy to tag, comment and rate. However, some participants did this on the external site where the content was and not on OpenScout. Overall users' impression of OpenScout is positive, although 70% felt that they needed more information in order to use OpenScout correctly. Users would like more information about the type of resource e.g. if it is a course or not, and would like to see resources without registering in another site.

The main feedback from these users for developers regard:

- Registration – there should be an email confirming that it has been successful
- Slidestar registration – don't like having to re-register on content provider's site
- Content – would like to know type of resource – is it a course or not?
- Commenting, Rating, Tagging – not clear where to do this

A complete description of the pilots can be found in Appendix A.

### *2.2.2 Portal version 2 Usability Pilots 1 – 2*

Two usability pilots on the second beta version of the portal were conducted by ITD in cooperation with Sofia University (Center of IST, Faculty of Mathematics and Informatics, Faculty of Economics and Business Administration), involving trainers, students and researchers in the evaluation process. ITD also involved a number of SMEs representatives, part of its business network. All participants were Bulgarian. In total 38 responses were collected for both user groups. The majority of these users very often search for teaching/learning materials in Internet. Social network sites are quite popular among users, as only 4 (10%) state that they never use them. On the other hand, users occasionally or rarely rate or make comments for the content in Internet, tag content or contribute to online communities. Approximately a quarter of the users share often their own learning materials. Therefore, a special focus needs to be put to motivate end-users to contribute tags, comments and own learning resources in Open Scout environment.

Nearly all participants agreed that it is easy to login and register. While about 90% of participants agree that the content is easy to access, relevant and of sufficient quality, only 73.5% found the number of resources sufficient. About 20% don't

believe that the filters helped them find relevant resources or were properly chosen. The search services and amount of content available in Open scout can be improved. Many participants prefer other search engines, such as Google, to OpenScout. Tagging, commenting and rating still pose problems. From the comments it appears that there is still a confusion about where do to this on the OpenScout site. User comments indicate that some participants try to tag and comment on the content provider's site instead of OpenScout, and then don't understand why they have to register on that site. Overall users' impression of OpenScout is very positive. There are some features that need to be improved in order to make the use of the Open scout services more user-friendly. About 24% do not find it intuitive to search in OpenScout. 61% believe that information needs to be provided to users in order to use the portal correctly.

In this pilot the overall users' impression of OpenScout was positive; however, there are some features that need to be improved in order to make OpenScout services more user-friendly:

- Participants found that the search services, including the filters, can be improved, and many prefer other search engines to OpenScout.
- Rating, tagging and commenting still pose problems. From users' feedback it appears that there is still confusion about where to tag and comment content on the OpenScout site, many try to do this on the content providers site.
- Users need more information to use portal correctly – help functionality missing

More details of the user characteristics and the pilot results are presented in Appendix A.

## ***2.3 Results and Improvement Recommendations***

Results from the formative evaluations and pilots are used to provide user-based development guidelines and recommendations, and are circulated throughout the project.

In this section we first compare the results of the usability pilots on the two versions of the portal in order to determine what has improved and what still needs to be improved, and then we provide recommendations for improvements based on all user input received in formative evaluation and pilots to date.

We are able to compare pilot outcomes because both pilots followed the same core scenarios of registering, logging in, searching, rating, tagging and commenting. Pilot 2 had an additional search via filter scenario. 51 users participated in Pilot 1 and 38 in Pilot 2. Figure 1 shows that user impressions about registration and login have improved. The indicator used is the percentage of participants in each pilot who agreed or strongly agreed with the statement. Overall agreement is now around 97% for ease of logging in, and 95% for ease of registration.

Figure 1: Login & Register experience

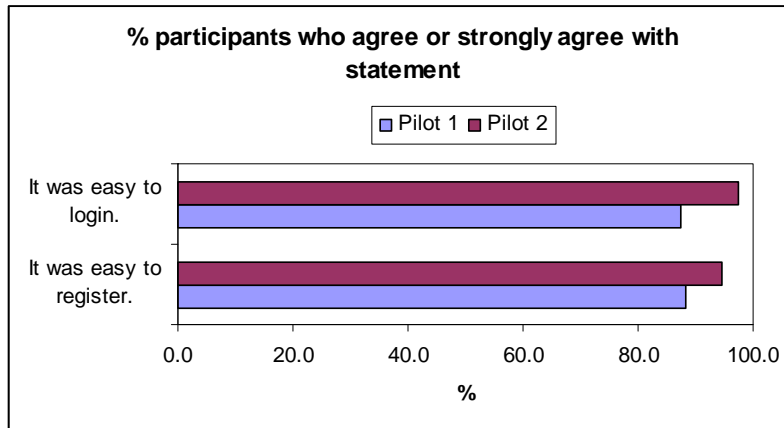


Figure 2 shows that impressions about searching for management resources are more positive. Users are now more in agreement about the ease of access to documents and materials, the quality of resource found, and relevance of the search results (~90%). Work still needs to be done to improve the number of the resources found. Filters were not evaluated in the first pilot.

Figure 2: Search experience

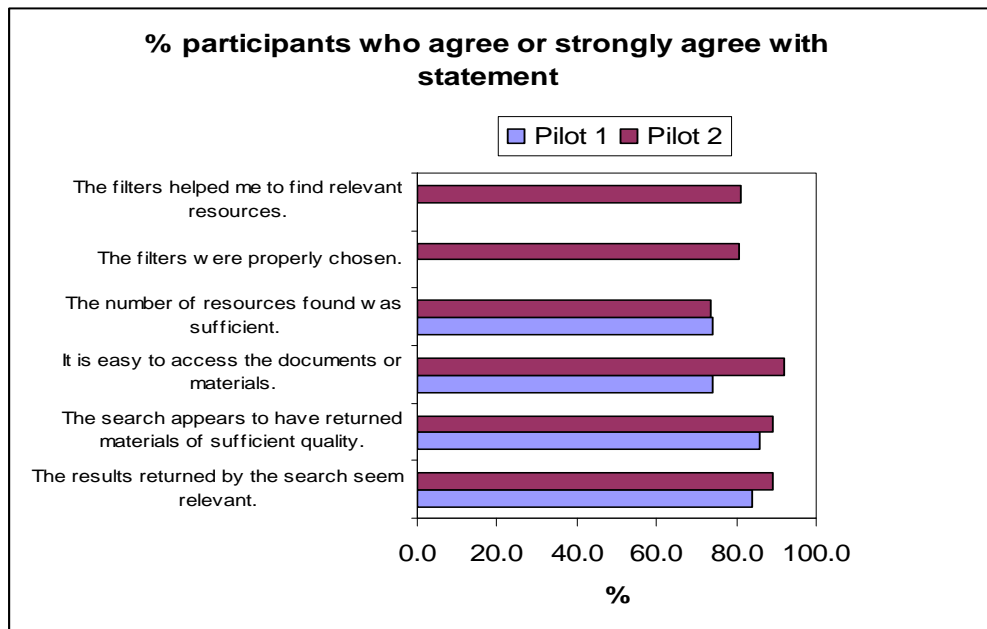
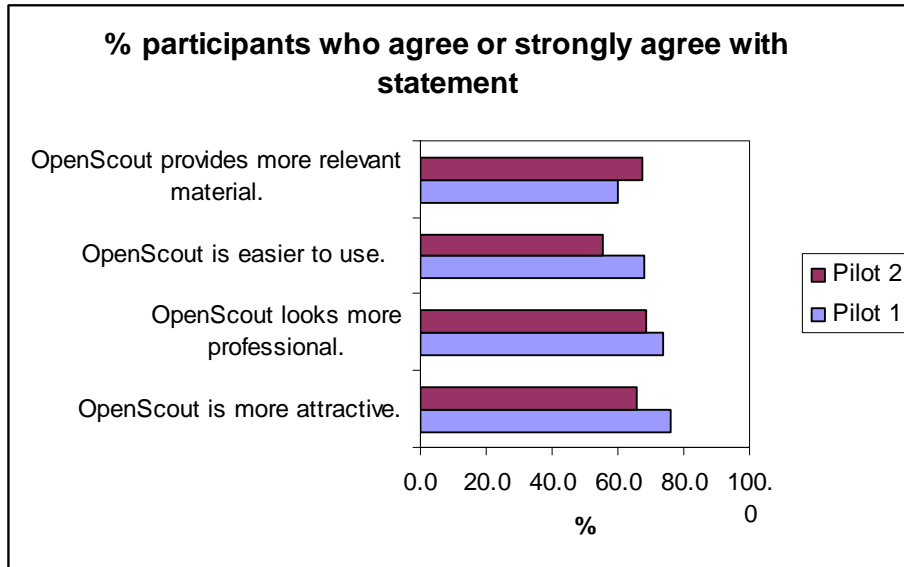


Figure 3 shows how users see OpenScout compared to other search engines. In Pilot 2, users felt that OpenScout compared more poorly to other search engines than users in Pilot 1. The only improvement made was in the relevance of material.

Figure 3: Comparison of OpenScout to other search engines



In the second Pilot participants had more trouble tagging, rating and commenting content than in the first pilot with 25-30% of users experiencing problems (see Figure 4). They often try to do it on the content provider’s site, so this needs to be made more visible on the OpenScout site.

Figure 4: Tag, Comment, Rate experience

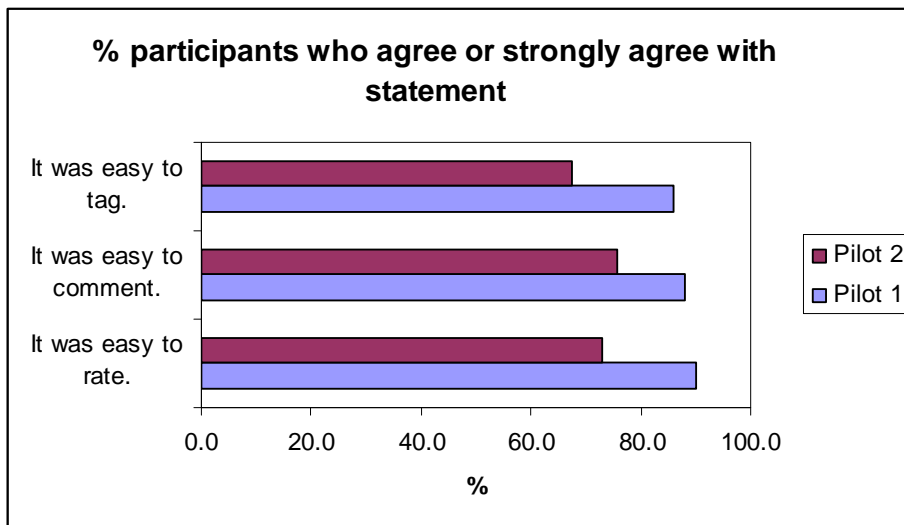
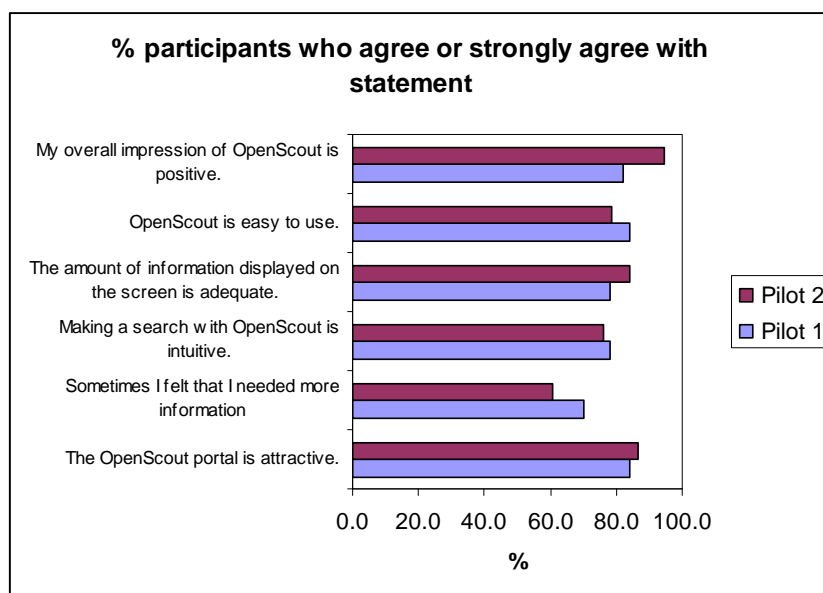


Figure 5 shows that overall impressions about OpenScout improved in the 2<sup>nd</sup> version of the portal moving from 82 to 95%. However, 60% of users in Pilot 2 felt that they needed more information to use OpenScout correctly.

Figure 5: General OpenScout experience



### Recommendations for Portal Development

The main results from the formative evaluations and pilots of the OpenScout portal from March – August 2011 are summarized in Table 3. Overall users’ impressions of OpenScout are positive; however, there are some features that need to be improved. User’s want quality management content, easy to find content, easily accessible content, and a helpful and professional website. The implications to portal development of user feedback is described for each these areas.

Table 3: Summary of the feedback from the usability pilots and demonstrations

What the Users’ want:	Implications to Portal Development
Quality Management Content	<ul style="list-style-type: none"> <li>- Link more high quality management databases</li> <li>- Improve search algorithms so that highly rated content is shown first (Also consider ratings coming from the content providers site if possible.)</li> <li>- Short, practical content needed for SMEs</li> </ul>
Easy to Find Content	<ul style="list-style-type: none"> <li>- Search Functionality at least as good as Google Scholar, Science Direct, EBSCO, etc.</li> </ul>

	<ul style="list-style-type: none"> <li>- Add complex queries (AND, OR) or advanced search</li> <li>- Add automatic spelling correction</li> <li>- Add search for author, search by date</li> <li>- In Filter Search, would like to search by type of resource. Is it a course? An article? A research paper? A presentation? A video? A podcast?</li> <li>- In Filter Search, would like to be able to go backwards, i.e. select other filters without having to start from scratch (reset).</li> <li>- Add a place to store links to previously found relevant content</li> <li>- Add content recommendation algorithms</li> <li>- Inform user of new interesting material matching stored keywords via Feeds</li> </ul>
Easily Accessible Content	<ul style="list-style-type: none"> <li>- Users do not like re-registering on other sites (e.g. Slidestar) to access content. Add single sign-on procedure</li> </ul>
Helpful and Professional Website	<ul style="list-style-type: none"> <li>- Registration process needs to be improved; for example, add email confirming it has been successful, click here if you have forgotten password, etc...</li> <li>- Need Registration email validation, current process allows you to register anyone whose email you know (no spam-bot security).</li> <li>- Make sure that users cannot be confused about where they should register to access OpenScout portal. (Some registered on OpenScout site instead of portal.)</li> <li>- Explain Tools Page: Why tools?,</li> </ul>

	<p>how are they structured?, don't show the full list of tools, make it expandable</p> <ul style="list-style-type: none"> <li>- Add overview of repositories.</li> <li>- The interface should be more intuitive, allowing the user to understand the boundaries between OpenScout and the external websites where the resource is opened</li> <li>- Make it more obvious where to comment, rate and tag (some users are doing this on the content provider's sites instead of OpenScout).</li> <li>- Add page about "What is Open Content"? Resources to find out more.</li> <li>- Add User Guidelines – tutorial about how to use the portal, what is tagging?</li> <li>- Add Help functionality – translation function is confusing.</li> <li>- Would like to have content recommendations: top read, top rated, top searched, top commented.</li> </ul>
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Based on the various evaluations, we were able to identify weaknesses and improvement suggestions from the users' perspective. These results will be incorporated in the next development phase.

## **2.4 Conclusion and Future Plans**

The results of the evaluations with initial users have shown promising results. As a summary, we can state that the OpenScout tools and services match the users' requirements, needs and preferences in general. Improvement recommendations were made and will be taken into account in the next development phase.

At the end of year 2, August 2011, a total of 25 evaluations had been undertaken. The goal for the end of year 3 is 50 evaluations. Most of these evaluations will be usability pilots of the portal with different user groups. Pilots will take place each time

there is a new stable version of the portal. During the last year of the project the publishing, community functionalities, competence searching, and tool library features will be added to OpenScout portal. Pilots will be run in order to evaluate these new services as they become available. Pilots to evaluate the usability of the publishing functionality are planned to start in September. In addition, pilots will also evaluate if previously added functionality, such as searching, rating or commenting has improved.

Future plans also include adding eye-tracking to the usability pilots, evaluating the automatic recommendations of people and content, and evaluating the connection to OpenScout from outside systems (e.g. search widgets).

Formative evaluations will continue during the last project year. Demos during i-KNOW 2011 and EC-TEL are planned for September. In addition, an evaluation of the Frequently Asked Questions (FAQ) of the portal is planned for September/October.

Large-scale trials will take place once we are close to a final prototype version – we estimate this to be around Month 30. UNED will organise the validation trials for a broad community across the Mediterranean area with an outreach to Northern Africa within the AVICENNA network. SPK will organise validation trials for SMEs across Europe within the PLATO network, EFMD will organise validation trials for enterprises and business schools across Europe, ITD and JSI will organise the validation trials for Higher Education Institutions in Southern and Eastern Europe, and VMU will organise validation trials for Higher Education Institutions in the Baltic Region.

### 3 Appendix: Exhibit 1 – Usability Pilot Questionnaires and Task Scenarios

# Example of OpenScout Usability Pilot 1

## Questionnaires & Task Scenarios

This evaluation of the first Beta version of the OpenScout portal comprises three parts:

- First, you complete a **Pre-Evaluation Questionnaire** so that we can determine if certain user characteristics influence the OpenScout experience.
- Next, you are requested to perform three simple tasks. Each task is followed by some questions.
- Finally, in the **Post-Evaluation Questionnaire** you can provide feedback about your overall satisfaction with the OpenScout portal.

**Thank you for your kind cooperation!**

**The results will help us improve the final version of the OpenScout portal.**

## Pre-Evaluation Questionnaire

Participant Code: \_\_\_\_\_ (given by Local Pilot Coordinator)

1. I am a:

- Teacher from academia (e.g. professor, lecturer)
  - Teacher from company (e.g. trainer, coach, instructor, consultant)
  - Librarian or documentation expert
- Student in academia
- Executive education participant
- SME employee, owner or manager
- Freelancer
- Large company employee or manager
  - Other (specify: \_\_\_\_\_)

2. I am: male  female

3. My age range:  18 – 24  25 – 39  40 – 65  65+

4. Nationality \_\_\_\_\_ (specify: \_\_\_\_\_)

5. My education (highest level reached):

- Secondary education
- BA/BS/BSc/licence or equivalent
- MA/MS/MSc/maitrise or equivalent
- MBA
- PhD/DBA or equivalent

6. I study/studied Economy or Management:

- Yes  No

7. I use the Internet:

- Daily
- Weekly
- Once in a while

8. I know what Open Content means.

- Yes  No

9. I rate or comment about something (e.g. a book, a hotel, a video, a document) on the Internet.

- Often or very often  Occasionally  Never

10. I tag content on the Internet.

- Often or very often  Occasionally  Never

11. I upload my own teaching/learning material to the Internet to share with others.

- Often or very often  Occasionally  Never

12. I search for management teaching/learning material (e.g. courses, documents, videos) on the Internet.

Often or very often       Occasionally       Never

13. I use social networking sites (e.g. LinkedIn, Facebook, etc.).

Often or very often       Occasionally       Never

14. I contribute to online communities (e.g. forums, wikipedia, etc.).

Often or very often       Occasionally       Never



## Task 1: Register and Login to OpenScout

### Scenario:

The OpenScout portal is accessible at: PILOT COORDINATOR TO PUT LINK HERE

Please register and then login.

### Post-Task Questionnaire for Task 1

15. Please indicate how strongly you agree or disagree with the following statements.

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Agree</b>	<b>Strongly Agree</b>
a. It was easy to register.				
b. It was easy to login.				

16. Any suggestions about how registering or logging in could be improved?

\*\*\*\*\*

## Task 2: Directed Search for Management Resources

### Scenario:

Search for management resources about “keyword”. EACH PILOT COORDINATOR SHOULD REPLACE “keyword” WITH A RELEVANT KEYWORD FOR THEIR PILOT, AND ENSURE THAT SOME RESOURCES CAN BE FOUND FOR THIS KEYWORD!

Browse through the resources found.

### Post-Task Questionnaire for Task 2

17. Please indicate how strongly you agree or disagree with the following statements.

	Strongly Disagree	Disagree	Agree	Strongly Agree
a. The results returned by the search seem relevant.				
b. The search appears to have returned materials of sufficient quality.				
c. It is easy to access the documents or materials.				
d. The number of resources found was sufficient.				

18. I normally use the following search engines when I search for information about management knowledge: \_\_\_\_\_  
\_\_\_\_\_

19. Compared to these search engines, OpenScout:

	Strongly Disagree	Disagree	Agree	Strongly Agree	No Opinion
a. Is more attractive.					
b. Looks more professional.					
c. Is easier to use.					
d. Provides more relevant material.					

20. Any suggestions or comments about how searching could be improved?



### Task 3: Rate, Comment and Tag Content

Scenario:

In the list of the results from the previous search, select the “XXXlearning resource.” EACH PILOT COORDINATOR TO DECIDE WHICH RESOURCE WOULD BE MOST INTERESTING FOR HIS/HER PILOT.

After you have read it, please:

- Rate it
- Add a Comment
- Add a Tag

### Post-Task Questionnaire for Task 3

21. Please indicate how strongly you agree or disagree with the following statements.

	Strongly Disagree	Disagree	Agree	Strongly Agree
a. It was easy to rate.				
b. It was easy to comment.				
c. It was easy to tag.				

22. Any suggestions about how rating, commenting or tagging could be improved?

\*\*\*\*\*

### Post-Evaluation Questionnaire

This questionnaire gives you an opportunity to express your overall satisfaction with the OpenScout portal. Think about all the tasks that you have done while you answer these questions.

23. Please indicate how strongly you agree or disagree with the following statements.

	Strongly Disagree	Disagree	Agree	Strongly Agree
a. The OpenScout portal is attractive.				
b. Sometimes I felt that I needed more information in order to use OpenScout correctly.				
c. Making a search with OpenScout is intuitive.				
d. The amount of information displayed on the screen is adequate.				
e. OpenScout is easy to use.				
f. My overall impression of OpenScout is positive.				

24. Please list here any improvements you think could be made to the OpenScout portal. Your comments are greatly appreciated.

## 4 APPENDIX A: Full Pilot Reports

### 4.1 *Portal version 1 – Final Report – Combined Data*

# OpenScout Usability Pilots 1-4

Portal - Beta Version 1

March – April 2011

## Final Report – Combined Data

### Participant Instructions

This evaluation of the first Beta version of the OpenScout portal comprises three parts:

- First, you complete a **Pre-Evaluation Questionnaire** so that we can determine if certain user characteristics influence the OpenScout experience.
- Next, you are requested to perform three simple tasks. Each task is followed by some questions.
- Finally, in the **Post-Evaluation Questionnaire** you can provide feedback about your overall satisfaction with the OpenScout portal.

**Thank you for your kind cooperation!**

**The results will help us improve the final version of the OpenScout portal.**

## User Characteristics (from Pre-Evaluation Questionnaire)

There were 51 total participants in the first set of usability pilots, 9 teachers and 42 students. 24 were male and 27 were female. Their range of ages was:

age	Freq.	Percent	Cum.
18 - 24	28	54.90	54.90
25 - 39	20	39.22	94.12
40 - 65	3	5.88	100.00
Total	51	100.00	

Participants came from three different institutions: ESCP Europe (14), University of Jyväskylä (4) and Vytautas Magnus University (33). Nationalities represented were:

country	Freq.	Percent	Cum.
Finland	4	7.84	7.84
Germany	6	11.76	19.61
Lithuania	33	64.71	84.31
Poland	3	5.88	90.20
Slovakia	4	7.84	98.04
Ukraine	1	1.96	100.00
Total	51	100.00	

The highest level of education obtained by the participants was:

education	Freq.	Percent	Cum.
BA/BS/BSc/licence or equivalent	26	50.98	50.98
MA/MS/MSc/maitrise or equivalent	7	13.73	64.71
MBA	12	23.53	88.24
PhD/DBA or equivalent	4	7.84	96.08
Secondary education	2	3.92	100.00
Total	51	100.00	

98% of the participants study or have studied economy or management. All participants use the Internet daily, and 92% of participants know what Open Content means.

The majority occasionally rate or comment about something (e.g. a book, a hotel, a video, a document) on the Internet.

I rate or comment about something on the Internet.	Freq.	Percent	Cum.
Never	5	9.80	9.80
Occasionally	33	64.71	74.51
Often or very often	13	25.49	100.00
Total	51	100.00	

The majority occasionally tag content on the Internet.

I tag content on the Internet.	Freq.	Percent	Cum.
Never	9	17.65	17.65
Occasionally	27	52.94	70.59
Often or very often	15	29.41	100.00
Total	51	100.00	

A large number never upload their own teaching/learning material to the Internet to share with others.

I upload my own teaching/learning material to the Internet to share with others.	Freq.	Percent	Cum.
Never	20	39.22	39.22
Occasionally	26	50.98	90.20
Often or very often	5	9.80	100.00
Total	51	100.00	

Most search for management teaching/learning material (e.g. courses, documents, videos) on the Internet.

I search for management teaching/learning material (e.g. courses, documents, vid	Freq.	Percent	Cum.
Never	6	11.76	11.76
Occasionally	20	39.22	50.98
Often or very often	25	49.02	100.00
Total	51	100.00	

They are big users of social networking sites (e.g. LinkedIn, Facebook, etc.).

I use social networking sites (e.g. LinkedIn, Facebook, etc.).	Freq.	Percent	Cum.
Never	1	1.96	1.96
Occasionally	14	27.45	29.41
Often or very often	36	70.59	100.00
Total	51	100.00	

**Although many never** contribute to online communities (e.g. forums, wikipedia, etc.).

I contribute to online communities (e.g. forums, wikipedia, etc.).	Freq.	Percent	Cum.
Never	16	31.37	31.37
Occasionally	23	45.10	76.47
Often or very often	12	23.53	100.00
Total	51	100.00	

## Task 1: Register and Login to OpenScout

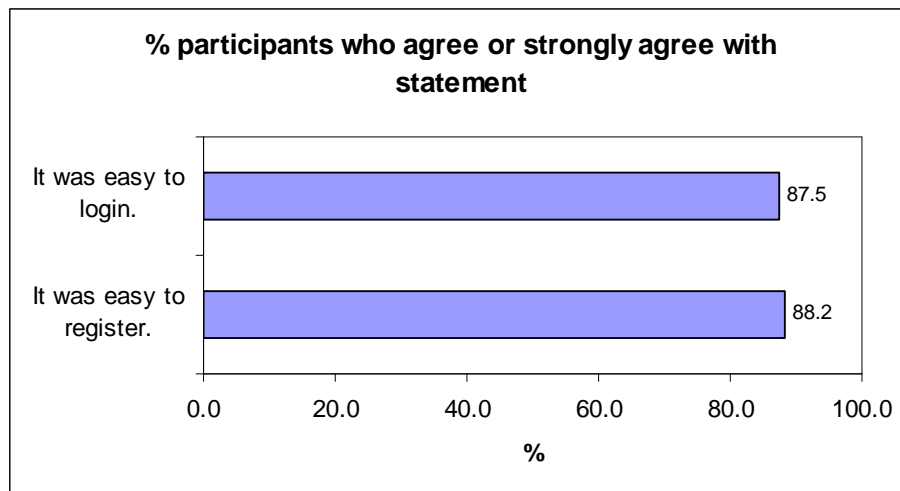
### Scenario:

The OpenScout portal is accessible at: <http://www.openscout.net/demo>

Please register and then login.

### Post-Task Questionnaire for Task 1 - Results

25. Please indicate how strongly you agree or disagree with the following statements.



Participants generally agree that it was easy to login and register, although some participants did experience problems. Problems included misunderstanding where to log in, some logged into the OpenScout site and not the OpenScout portal. Users also expected to receive an email confirming that their registration had been successful. See their comments below.

26. Any suggestions about how registering or logging in could be improved?

- register / log-in field above right or left, not in in the lower area. Why do I receive two emails ? (this participant obviously logged into the wrong place)
- This page don't allow proceed automatically by clicking the <http://openscout.net/demo>. Should open under the Task1 - Register and login. When "copy paste" the address at <http://openscout.net/demo> => at the <http://> space, it went ahead. / Second problem was on the new browser window. It was confusing, do I have to put login and password when being on the new browser window. The next window did not take password Information Technology. Maybe I misunderstood this step, but much too difficult how to proceed.
- No feedback given after filling in registration details. Normally one receives a notification stating that either registration was successful and one can log in with the created credentials

- or that one has to activate user account with a code sent normally to email. Now user was left a bit confused about whether the registration was successful.
- very nice that I don't need to go in my email to confirm my registration
  - I should say that you need to write a information notice that as the client of this data base you dont need to go to you email to confirm the link for registration.

## Task 2: Directed Search for Management Resources

### Scenario:

Search for management resources about “keyword”. EACH PILOT COORDINATOR SHOULD REPLACE “keyword” WITH A RELEVANT KEYWORD FOR THEIR PILOT, AND ENSURE THAT SOME RESOURCES CAN BE FOUND FOR THIS KEYWORD! Most pilots searched for the word “Information Technology”

Browse through the resources found.

### Post-Task Questionnaire for Task 2 - Results

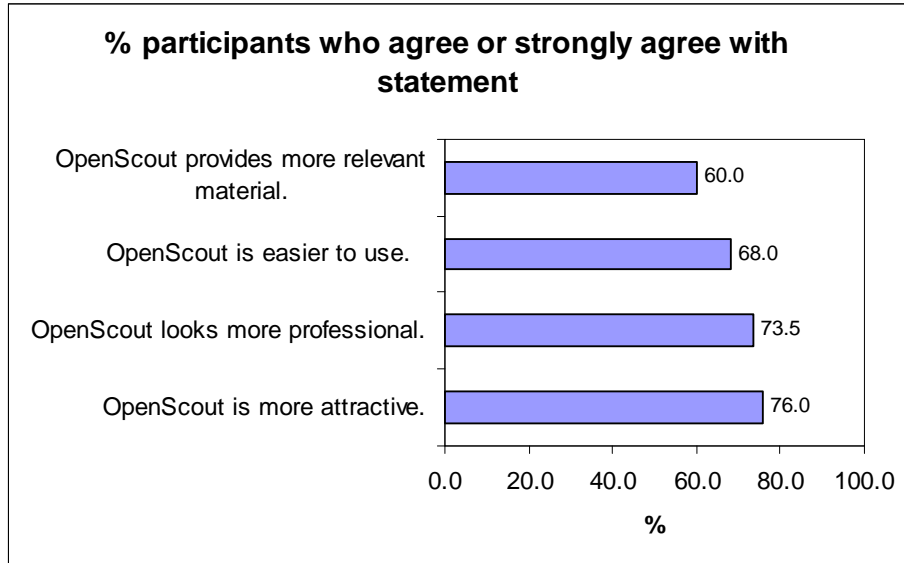
27. Please indicate how strongly you agree or disagree with the following statements.



Improvement can be made in this area. 26% disagree that the number of resources found is sufficient and that they are easy to access.

28. I normally use the following search engines when I search for information about management knowledge: google, google scholar, wikipedia, science direct, opencourse ware, slideshare, share tec, Willey, Emerald, Ebscho, Sage, Elaba (lithuanian). The main search engine mentioned was Google.

29. Compared to these search engines, OpenScout:



Many participants prefer other search engines to OpenScout. Only 60% believe that it provides more relevant material.

30. Any suggestions or comments about how searching could be improved?

- its hard to assess if the quality of the data is good or not
- allow a combination of keywords
- main problem is availability of content, with only <1000 docs being available to be searched / - the search function works well and seems to find appropriate hits / - I could not access content due to another login, hence I cannot estimate the quality
- More content needed; spell correction; sorting by relevance or data
- More content, faster loading of new results
- The page don't allow me to go ahead???
- "Translate keywords to" -button right next to search field is confusing: one would expect to find a button performing search at that point.
- More material, a little bit smoother layout, faster. I would have answered "Pretty much same" if it was an option.
- I suggest to show for users what type of resource I can find if I go deeper because I almost found the courses
- I was thinking to find the documents in pdf or word but I couldn't.
- In advanced search when you choose the language English or other it gives you the resource list but i want to choose more, like English language and ppt or pdf file format and only then choose the search.

### Task 3: Rate, Comment and Tag Content

#### Scenario:

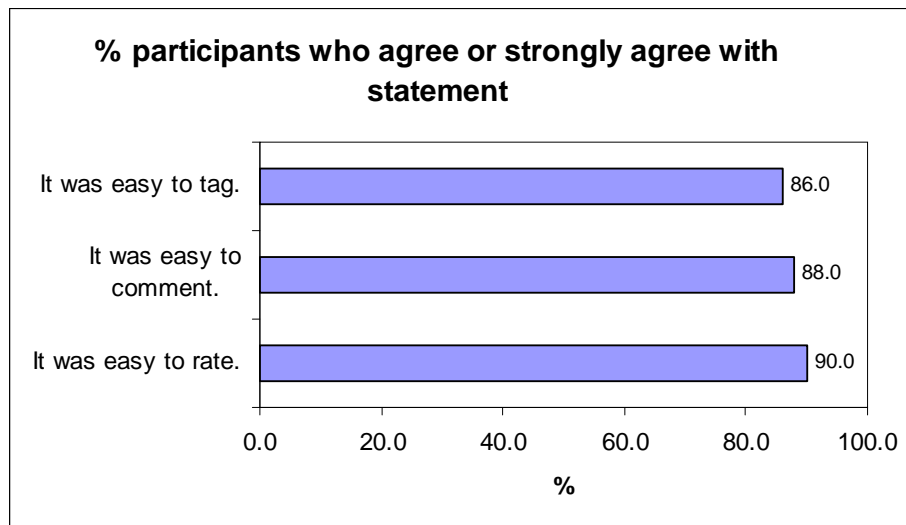
In the list of the results from the previous search, select the “XXXlearning resource.” EACH PILOT COORDINATOR TO DECIDE WHICH RESOURCE WOULD BE MOST INTERESTING FOR HIS/HER PILOT.

After you have read it, please:

- Rate it
- Add a Comment
- Add a Tag

#### Post-Task Questionnaire for Task 3 - Results

31. Please indicate how strongly you agree or disagree with the following statements.



Overall participants agree that it is easy to tag, comment and rate. However, some participants did this on the external site where the content was and not on OpenScout!

32. Any suggestions about how rating, commenting or tagging could be improved?

- it's confusing that you cannot rate by clicking the link, only by choosing more details...
- As soon as I found the right place to tag, comment and rate, it was easy. However, at

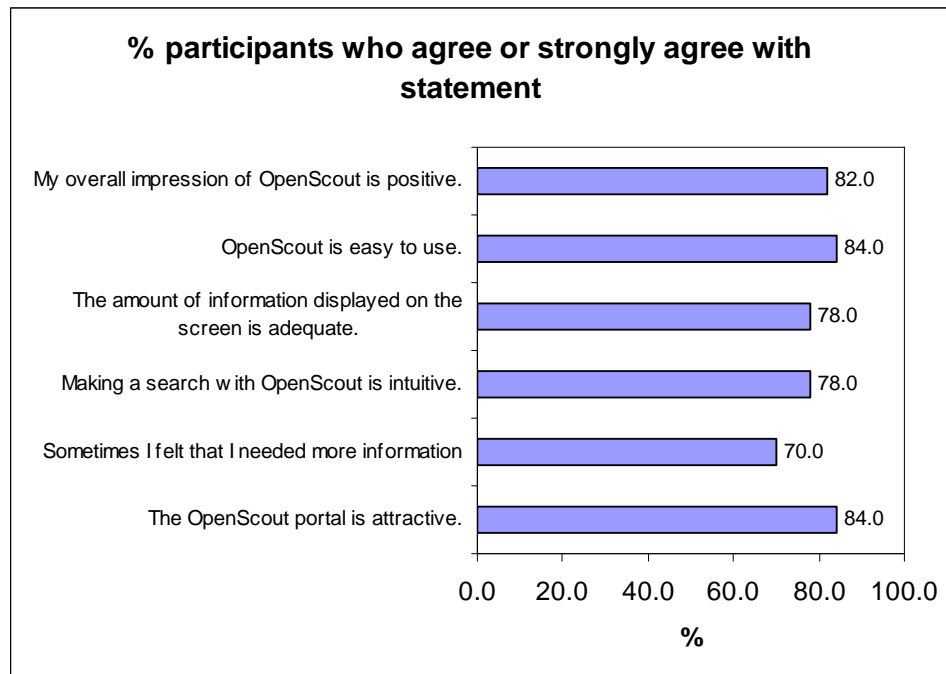
first I logged on to the Website of Open Learn and performed these activities there. This confusion of where to rate should be avoided and made more intuitive

- don't understand how the tagging works, but that's my incapability, I reckon
- commenting on extra page not possible / <http://openlearn.open.ac.uk/course/view.php?id=3357>
- but it is hard to find were do I have to rate and comment
- I couldn't find were to comment, tag and rate.
- Yes it was easy to rate or comment only then when you find it, I suggest to name the icon "More details" into "Commenting, rating and tagging"
- at first not easy to find were is it and in the beginning I started to comment into the document I found in the other data base.
- looks good

### Post-Evaluation Questionnaire - Results

This questionnaire gives you an opportunity to express your overall satisfaction with the OpenScout portal. Think about all the tasks that you have done while you answer these questions.

33. Please indicate how strongly you agree or disagree with the following statements.



Overall users' impression of OpenScout is positive, although 70% felt that they needed more information in order to use OpenScout correctly. Users would like more information about the type of resource e.g. if it is a course or not, and would like to see resources without registering in another site. Further comments are below.

34. Please list here any improvements you think could be made to the OpenScout portal.

- so far it's hard for me to see the benefits in comparison to google, wiki etc.... probably this should be pointed out at the beginning in more detail...
- As said before - the interface should be more intuitive, allowing the user to understand the boundaries between OpenScout and the external websites where the resource is opened
- unfavorable overall impression due to early stage of development of the platform (i.e. only fraction of functions online, little linked content), the functionality I saw seemed fine to me
- Improve advanced search (i.e. compare to databases like science direct, EBSCO, etc.)
- At this point, the amount of material available is quite small, which, however, is understandable at this point of development. Based on this short use, it is hard to tell, what improvements should be made: these suggestions would require a longer user-experience.
- How about ordering feeds for certain keywords? If new material comes, it'll be on my feedreader instantly.
- Portal was quite all right, but the questionnaire is a little bit confusing. It was quite difficult to notice the link to The OpenScout portal, it needs to be after "2. Please register and then login to the OpenScout Portal." not above the text. /
- I was hoping to find more material in English language and in word or pdf files
- could I enter the resource without registration to slidestar?
- write the notice for commenting that you need to come back in the same window.

#### *4.1.1 Portal version 1 Usability Pilot 1 – ESCP Europe*

##### **Pilot Information:**

**Context:** Business Schools & Learners

**Organization:** ESCP-Europe

**Number of users:** 14

**Evaluation Object:** OpenScout Portal

**Evaluation Objective:** user feedback about the usability of first Beta version of OpenScout portal.

**Timing:** 22 -25 March 2011

##### **Deployment Context:**

The ESCP Europe Wirtschaftshochschule Berlin e.V. is a state-recognized academic institution according to German law. It is part of the ESCP Europe European School of Management: a transnational school of higher education with campuses in Germany, France, Great Britain, Italy, and Spain. For ESCP Europe Berlin an international research focus is inextricably linked with excellent teaching and high-level management training. The combination of theory and practice is a central element of its various teaching programmes. The main objective of the institution is to support companies in a changing world by using theoretical progress for developing and improving practical solutions.

One of the programmes that ESCP Europe Berlin offers is the CeMBA (Central European Master of Business Administration programme). CeMBA is a general

management programme which is mainly targeted at young professionals in the Eastern European countries. In cooperation with renowned partner universities from Slovakia, Czech Republic, Poland, Ukraine, Estonia and Hungary country-specific knowledge is communicated as well preparing the students for future management task in the respective countries. Considering the circumstances 9 CeMBA students participated for the first OpenScout pilot and answered the questionnaire.

Another programme that ESCP Europe Berlin offers is the PhD programme in the field of Economics with a focus in International Management. The PhD programme is targeted at young professionals and alumni holding a Master of Science degree. With regard to the OpenScout pilot 5 PhD students evaluated the current demonstrator as well.

### **Deployment Design:**

On the 22<sup>nd</sup> of March 2011 the first official pilot of the OpenScout project was run after a class at 2:30 pm CET. After a brief introduction of the project, the project goals, current status and aim of the pilot each participant received an information sheet (incl. participant code, search subject, resource to choose) which was necessary for answering the questionnaire. To access the questionnaire students were asked for opening the pilot announcement email which contained the link to the demonstrator as well. Being a mandatory part of the class the pilot was timely announced by the CeMBA programme coordinator on Friday the 18<sup>th</sup> of March. This was supposed to ensure the commitment of the students.

Each student entered the questionnaire on a standalone computer. According to the pilot setting students had to complete a pre-evaluation questionnaire and perform three tasks on the demonstrator which were followed by questions:

- Task 1: Register and Login to OpenScout
- Task 2: Directed Search for Management Resources
- Task 3: Rate, Comment and Tag Content

Therefore, it was required to open the link to the demonstrator on another window. At first participants were asked to register and login to the demonstrator. After successfully logging in students had to search for a specific subject chosen by the pilot coordinator and browse through the search results. "Information Technology" was selected as an appropriate subject delivering many resources of relevance. After completing the task and answering the questions students had to skip/through through "Information technology: A new era?" as their primary learning resource and rate, tag as well as comment this resource for finishing the last task of the questionnaire. Afterwards, the final post-evaluation questionnaire gave the participants the opportunity to express their overall satisfaction with the demonstrator.

### **Discussion of Results:**

The following paragraph illustrates the issues which occurred during the first pilot. Additionally, recommendations will be partly provided:

1. Within this pilot students worked with the demonstrator and answered the questions on parallel. This could be challenging for some students as they have to switch from one window to another requiring more concentration. One student stated that he would have been more pleasant if the questionnaire could be answered afterwards or on paper. .
2. Even though we checked on the English skills of the participants by asking them many of the students had difficulties to cope with the questions within the questionnaire as well as with the content itself. It's of crucial meaning to make sure a proper English level exists. Furthermore, many of the students were unfortunately not familiar with the terms of tagging, commenting and rating in the context of learning resources. Due to their heritage it might be possible that they use different terms. An explanation was necessary or at least helpful to keep everyone on the same page.
3. As stated before an official announcement mail was sent by the CeMBA programme manager including the link ([www.openscout.net/demo](http://www.openscout.net/demo)) to the demonstrator. The link forwards you to the page where the latest version of the demonstrator can be accessed by another link. However, students had difficulties in accessing the demonstrator as the link wasn't obvious to them. Instead of entering the demonstrator participants rather tried to register for the OpenScout web portal which can be accessed on the page as well. As a consequence the link to the latest demonstrator should be embedded into amore obvious and demonstrative text box making it difficult to overlook the link.
4. Another issue that occurred is also related to the registration. Two of the students couldn't register and login. Furthermore, the keyword search didn't function at all. No explanation could be obtained and pilot coordinator was forced to withdraw these students from the pilot. As only limited space was available in the computer room no other computer could be provided to them.
5. While performing the search task some students made spelling mistakes and didn't receive any search results. This led to some confusion as they didn't realize their mistake on the first place. Only after asking the pilot coordinator it became clear what happened. As a consequence a spell correction was considered to be beneficial.
6. Users found the rating, commenting and tagging functionality confusing. Most participants had difficulties to find the right place to perform this task. All participants who understood the task properly did the rating, commenting and tagging on the source (OpenLearn site) of the learning resource. Only those who were not sure and asked the pilot coordinator were directed to the right site. In order to rate, tag and comment as intended by OpenScout users are required to go back to the search results and click on "more details" which is too complicated. Additionally the description "more detail" is not considered as obvious by them. One PhD student stated that it would be beneficial to get to

the metadata page (where commenting, rating and tagging is possible) and access the resource from there.

#### *4.1.2 Portal version 1 Usability Pilot 2 – JYU*

##### **Pilot Information:**

**Context:** Higher Educational Institution

**Organization:** University of Jyväskylä

**Number of users:** 4

**Evaluation Object:** OpenScout Portal

**Evaluation Objective:** user feedback about the usability of first Beta version of OpenScout portal.

**Timing:** 30 March – 1 April 2011

##### **Deployment Context:**

The Pilot was run at the University of Jyväskylä in the department of Information Systems and Computer Science with teachers from the study line e-Commerce. All teachers had a master's degree in economics and a strong technical background to understand the weaknesses the pilot would still have.

##### **Deployment Design:**

The participants were introduced in a short face to face meeting to the project, the project goals, current status and aim of the pilot. After that each participant received an information sheet (incl. participant code, search subject) which was necessary for answering the questionnaire. To access the questionnaire participants were asked to open the pilot announcement email which contained the link to the demonstrator as well.

Each participant filled the questionnaire on their own computer. According to the pilot setting participants had to complete a pre-evaluation questionnaire and perform three tasks on the demonstrator which were followed by questions:

- Task 1: Register and Login to OpenScout
- Task 2: Directed Search for Management Resources
- Task 3: Rate, Comment and Tag Content

Therefore, it was required to open the link to the demonstrator on another window. At first participants were asked to register and login to the demonstrator. After successfully logging in they had to search for a specific subject chosen by the pilot coordinator and browse through the search results. "Information Technology" was selected as an appropriate subject delivering many resources of relevance. After

completing the task and answering the questions participants chose a learning resource to rate, tag and comment this resource for finishing the last task of the questionnaire. Afterwards, the final post-evaluation questionnaire gave the participants the opportunity to express their overall satisfaction with the demonstrator.

### **Discussion of Results:**

The following paragraph illustrates the issues which occurred during the first pilot. Additionally, recommendations will be partly provided:

1. For one participant the questionnaire was confusing and the switching between questionnaire and portal problematic. The participant was also not directly able to find the link to the demonstrator from the questionnaire and was wondering how the tasks could be fulfilled within the questionnaire.
2. Steps of the evaluation not 100% clear for all participants. This included especially where and how to register and login. Participants were also confused because no feedback was given after the registration, so they were uncertain if the registration actually worked.
3. One participant had, even if working in an IT department, a lack of computer skills and big problems to register. The participant stopped at that time and didn't fulfil the tasks.
4. The impressions of OpenScout were quite positive (keeping in mind the technical background of participants). Rating, Tagging and commenting was intuitive for the participants. Negatively mentioned was the lack of content.

#### *4.1.3 Portal version 1 Usability Pilot 3 – VMU Teachers*

##### **Pilot Information:**

**Context:** Higher Educational Institution

**Organization:** Vytautas Magnus University

**Number of users:** 5

**Evaluation Object:** OpenScout Portal

**Evaluation Objective:** user feedback about the usability of first Beta version of OpenScout portal.

**Timing:** 7 April – 8 April 2011

##### **Deployment Context:**

The pilot was run with 5 teachers at the Vytautas Magnus University (VMU) and Lithuanian Academy of Physical Education (LAPE). The teachers from VMU were working in the Education department with the Managing Services of Learning study

programme and had a master degree in education management specialization. One of the teachers from VMU was also the PhD student. The teachers from the LAPE were working in the Recreation, Tourism and Sport Management department with the Tourism and Sport management study programme. Two of the teachers had the doctoral degrees in management and the third one had the master degree in economics.

The pilot with 5 teachers was run by Vytautas Magnus University on the 7<sup>th</sup> - 8<sup>th</sup> of April 2011 in the institutions where respondents were working (VMU and LAPE).

### **Deployment Design:**

The participants were introduced in a short face to face meeting to the project, the project goals, current status and aim of the pilot. After that each participant received an information sheet (incl. code and search subject) which was necessary for answering the questionnaire.

One participant filled the questionnaire on his own computer and pilots of four teachers were conducted orally as lack of time between their classes with the students during pilot days. According to the pilot setting participants had to answer a pre-evaluation questionnaire and perform three tasks on the demonstrator which were followed by questions:

- Task 1: Register and Login to OpenScout
- Task 2: Directed Search for Management Resources
- Task 3: Rate, Comment and Tag Content

The participants were required to open the link to the demonstrator from the OpenScout portal. At first participants were asked to register and login to the demonstrator. After successfully logging in they had to search for a specific subject chosen by the pilot coordinator and browse through the search results. "Creativity" and "Management" was selected as an appropriate subject delivering many resources of relevance. After completing the task and answering the questions participants chose a learning resource recommended by the pilot coordinator to rate, tag and comment this resource for finishing the last task of the questionnaire. Afterwards, the final post-evaluation questionnaire gave the participants the opportunity to express their overall satisfaction with the demonstrator.

### **Discussion of Results:**

The following paragraph illustrates the issues which occurred during the first pilot. Additionally, recommendations will be partly provided:

1. In the beginning of pilot teachers were introduced that they have to fill the first part of the questionnaire, then go to the demonstrator and after they had to finish the search and fill the other part of the questionnaire.

2. The daily use of the Internet and knowing what Open Content means helped teachers use the portal more easy. All of them studied economy or management so it was quiet interesting to them to search the material for management studies in this portal. The teacher's normally use the search engines like Google, ShareTec, Slidestar, Emerald, EBSCO, Elaba, Willey and Sage when they search for information or resources about management.
3. During the pilot revealed that all respondents search for management teaching/learning material on the Internet to improve their teaching, they also use social networking sites (e.g. LinkedIn, Facebook, etc.) and more than a half of them contributes to online communities (e.g. forums, wikipedia, etc.). Three teachers occasionally upload their own material to the Internet to share with others and only one of the five teachers never uploads. This may be influenced by teacher's age because he was over than 40 years.
4. The advantage which was mentioned by teachers about the demonstrator is that registration and login is easy to use. Some of the teachers wrote the comments that it is very good that you don't need to go to personal email to confirm the registration and that it is needed a notice about the successful registration. According to them it was also easy to rate, tag and comment the resources as well. However only after they realised that they have to come back to the resource which they want to rate, tag or comment. One of the respondent's suggestion was to name the icon "More details" into "Commenting, rating and taging".
5. The access to documents and materials, the search results, the founded resources in the demonstrator in general were seen by teachers on average. The demonstrator is still attractive to participants and the impression of OpenScout is positive but they were disappointed by the relevance of the material, they couldn't find the pdf files with the key word but instead of it they found only the courses. The last suggestion given by teachers was to make the ability to choose more than one of the given criterias for the search. This means that in advanced search when they choose the language „English“ it gives the list of all resources but don't let again to choose the desired selection criteria like type of the resource.

#### *4.1.4 Portal version 1 Usability Pilot 4 – VMU Students*

##### **Pilot Information:**

**Context:** Higher Educational Institution

**Organization:** Vytautas Magnus University

**Number of users:** 28

**Evaluation Object:** OpenScout Portal

**Evaluation Objective:** user feedback about the usability of first Beta version of OpenScout portal.

**Timing:** 5<sup>th</sup> of April 2011

**Deployment Context:**

The pilot was run with 28 students at two higher education institutions in Lithuania:

- At the department of Recreation, Tourism and Sport Management with 27 students from the Tourism and Sport Management study programme of Lithuanian Academy of Physical education (LAPE). The students were from the third year undergraduate degree.
- At the department of Education with one student from Managing Services of Learning study programme of Vytautas Magnus University (VMU). The student was in the second year of her master degree.

**Deployment Design:**

The pilot was run by Vytautas Magnus University on the 5<sup>th</sup> of April 2011 at 12:30 pm and 14:00 pm CET with 27 undergraduate students from the Tourism and Sport management study programme. The pilot with one postgraduate student from the Managing Services of Learning study programme was run by Vytautas Magnus University on the 5<sup>th</sup> of April 2011.

The participants were introduced in a short face to face meeting to the project, the project goals, current status and aim of the pilot. After that each participant received an information sheet (incl. code and search subject) which was necessary for answering the questionnaire. To access the questionnaire participants were asked to open the pilot announcement email from their group e-mail or personal e-mails which contained the link to the demonstrator.

Participants filled the questionnaire on their own computers at the computer class. According to the pilot setting participants had to complete a pre-evaluation questionnaire and perform three tasks on the demonstrator which were followed by questions:

- Task 1: Register and Login to OpenScout
- Task 2: Directed Search for Management Resources
- Task 3: Rate, Comment and Tag Content

Therefore, it was required to open the link to the demonstrator on another window. At first participants were asked to register and login to the demonstrator. After successfully logging in they had to search for a specific subject chosen by the pilot coordinator and browse through the search results. "Creativity" was selected as an appropriate subject delivering many resources of relevance. After completing the task and answering the questions participants chose a learning resource to rate, tag and comment this resource for finishing the last task of the questionnaire. Afterwards, the final post-evaluation questionnaire gave the participants the opportunity to express their overall satisfaction with the demonstrator.

### **Discussion of Results:**

The following paragraph illustrates the issues which occurred during the first pilot. Additionally, recommendations will be partly provided:

1. In the beginning of the pilot students were introduced that they have to fill the first part of the questionnaire, then go to the demonstrator and after they had to finish the search and fill the other part of the questionnaire. Some students were confused by the questions but the main problem was the lack of the English language knowledge.
2. During the pilot revealed that all respondents use social networking sites (e.g. LinkedIn, Facebook, etc.), 68% of them contributes to online communities (e.g. forums, wikipedia, etc.) and 82 % of students search for management teaching/learning material (e.g. courses, documents, videos) on the Internet.
3. More than a half of the students tags, comments and rates of the teaching/learning resources occasionally on the Internet. The other part of the students does that very often and only couple of them never tags, rates or comments on the Internet. Moreover 54 % of the students occasionally upload their own teaching/learning material to the Internet to share it with others and the rest of them never do that.
4. Some students had difficulties in accessing the demonstrator because in order to register to demonstrator they started to register for the OpenScout project web portal. Overall the participants were satisfied of the registration and login process to the portal. The main problem was that students were confused because no feedback was given after the registration, so in the future they want to get the email or a notice on the screen that the registration was successful.
5. The impressions of OpenScout were quite positive for respondents because it looked attractive and easy to use. Even though respondents were introduced that the portal is still in progression in the context of the teaching/learning material they still were insufficiently satisfied about the materials they got during the search. Some of the students had difficulties to enter the material.
6. As very positive thing for more than a half of the respondents was that the material they had found was easy to rate, comment and tag. The other part of the respondents were confused and used these functionalities only after then pilot coordinator showed to them.

#### **4.2 Portal version 2 – Final Report – Combined Data**

# OpenScout

## Usability Pilots 1-2

### Portal - Beta Version 2

July 2011

## Final Report – Combined Data

### Participant Instructions

This evaluation of the Beta version of the OpenScout portal comprises three parts:

- First, you complete a **Pre-Evaluation Questionnaire** so that we can determine if certain user characteristics influence the OpenScout experience.
- Next, you are requested to perform three simple tasks. Each task is followed by some questions.
- Finally, in the **Post-Evaluation Questionnaire** you can provide feedback about your overall satisfaction with the OpenScout portal.

**Thank you for your kind cooperation!**

**The results will help us improve the final version of the OpenScout portal.**

## User Characteristics (from Pre-Evaluation Questionnaire)

ITD conducted the pilot tests in cooperation with Sofia University (Center of IST, Faculty of Mathematics and Informatics, Faculty of Economics and Business Administration), involving trainers, students and researchers in the evaluation process. ITD involved as well a number of SMEs representatives, part of its business network. In total there were collected 38 responses for both user groups.

According to pre-test data, there could be summarized the following user characteristics.

End-users take part in the following sub-groups:

12 Teachers in academia (32%), 14 SMEs (37%), 4 large companies employees (11%), 4 students (11%), 2 freelancers ( 5%), 1 teacher in secondary school (2.5%) and 1 librarian (2.5%).

Among participants, 47% are male and 53% are female;

The age distribution is presented below:

age	Freq.	Percent	Cum.
18 - 24	1	2.63	2.63
25 - 39	27	71.05	73.68
40 - 65	10	26.32	100.00
Total	38	100.00	

All of the participants are Bulgarian.

Educational level of the participants is presented in the table below. It is interesting to note that more than 40% of participants have MBA or PHD educational level.

education	Freq.	Percent	Cum.
BA/BS/BSc/licence or equivalent	2	5.41	5.41
MA/MS/MSc/maitrise or equivalent	18	48.65	54.05
MBA	9	24.32	78.38
PhD/DBA or equivalent	6	16.22	94.59
Secondary education	2	5.41	100.00
Total	37	100.00	

Among respondents, 17 (45%) stated that they have studied economy or management and 21 (55%) are not professional in this topic.

### Internet use and users' patterns

The next few questions helped us to understand the participants' activities in Internet in order to identify some common users' patterns. It is important to highlight that 97% of all respondents use daily Internet and 3% (only 1 person) uses Internet on weekly basis. 92% are familiar with Open Content concepts.

The following questions directly reflect users' behavior in Internet, relevant to Open Scout platform and services; These responses allow us to make preliminary assumptions about Open Scout platform usage and activities, that users most probably will deploy in the future.

	<b>Very often/Often</b>	<b>Occasionally</b>	<b>Never</b>	<b>Total</b>
Rate or making comments for content in Internet	6	28	4	38
Tag content on the Internet	6	27	5	38
Upload my own teaching/learning material, to share with others	10	22	6	38
Search for management teaching/learning materials	29	9	-	38
Use social network sites	23	11	4	38
Contribute to online communities (forums, wikipedia)	8	25	4	37

From the table above, it becomes clear that majority of the users very often search for teaching/learning materials in Internet. Social network sites are quite popular among users, as only 4 (10%) state that they never use them. On the other hand, users occasionally or rarely rate or make comments for the content in Internet, tag content or contribute to online communities. Approximately a quarter of the users share often their own learning materials. Therefore, a special focus need to be put to motivate end-users to contribute with tags, comments and own learning resources in Open Scout environment.

## Task 1: Register and Login to OpenScout

### Scenario:

The OpenScout portal is accessible at: <http://openscout.net/demo>

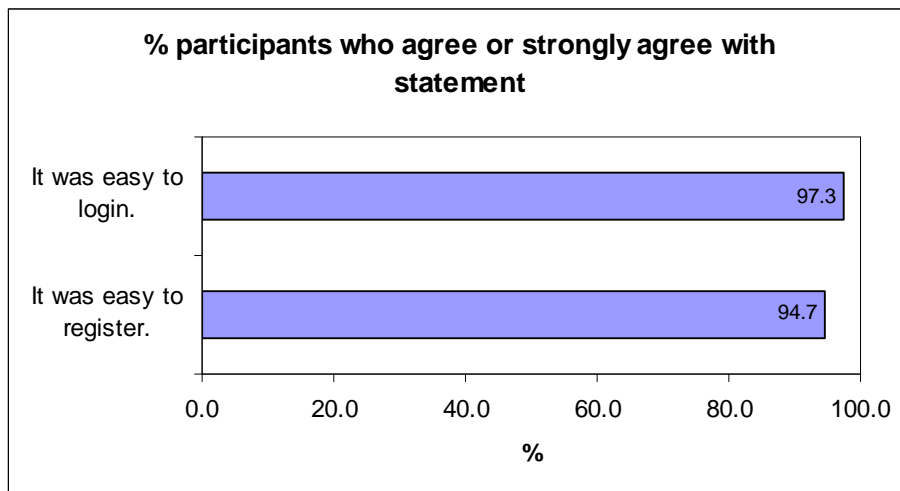
Please open the portal in a new browser window. Be sure to keep this survey open!

**Your first task is to register and then login to the OpenScout Portal.**

Once you have completed this task please return to this survey to answer these questions

### Post-Task Questionnaire for Task 1 - Results

- Please indicate how strongly you agree or disagree with the following statements.



Nearly all participants agree that it is easy to login and register. Only 2 participants disagree that it was easy to register; and one – that it was easy to login. 9 participants made some comments for registration improvement, as stated in the next question.

- Any suggestions about how registering or logging in could be improved?

- I think that it would be helpful if the registration form ends with a pop-up message which indicates that the registration is successful or similar.
- Password field can allow some specific characters not only a-z; 0-9;
- may be to add CAPTCHA code to the registration form

### D6.2.3 Evaluation Report on Prototype and Use Case Validation



- e-mail validation and verification
- no spam boot security
- there is no any e-mail approval or something else against spam-bot;
-

## Task 2: Directed Search for Management Resources

### Scenario:

Search for management resources using keywords such as: "information", "change", "marketing", ..

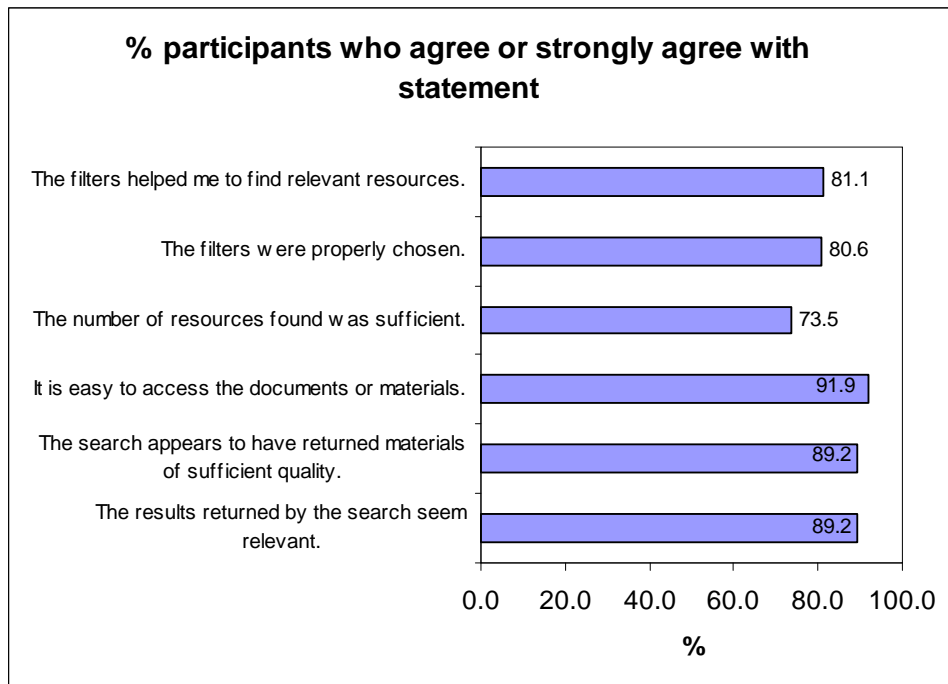
Browse through the resources found.

Experiment with using the different filters.

Once you have completed this task please return to this survey to answer these questions.

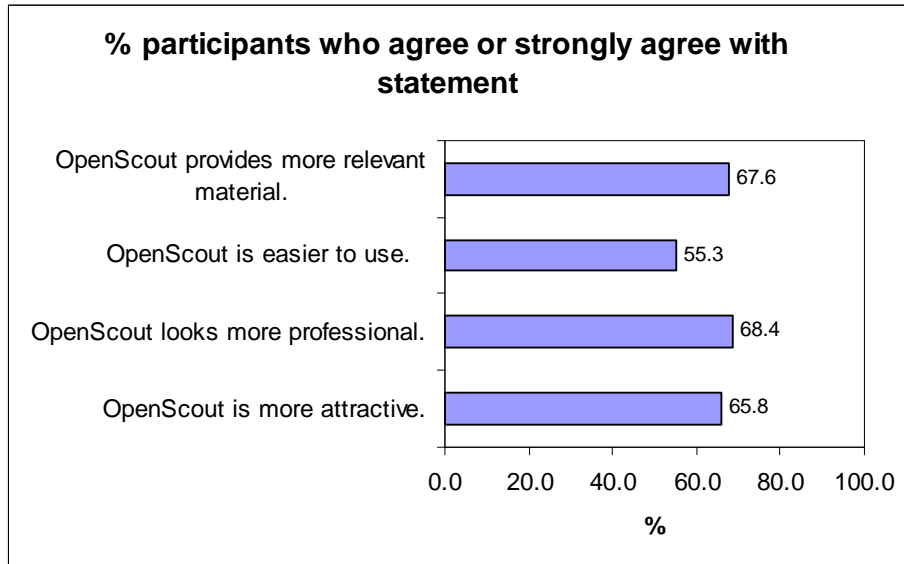
### Post-Task Questionnaire for Task 2 - Results

- Please indicate how strongly you agree or disagree with the following statements.



While about 90% of participants agree that the content is easy to access, relevant and of sufficient quality, only 73.5% found the number of resources sufficient. About 20% don't believe that the filters helped them find relevant resources or were properly chosen. The search services and amount of content available in Open Scout can be improved.

- I normally use the following search engines when I search for information about management knowledge: google, slideshare, Sage, Ebsco, Jstor. The main search engine mentioned was Google **(25 responses)**.
- Compared to these search engines:



Many participants prefer other search engines to OpenScout.

- Any suggestions or comments about how searching could be improved?
  - The mechanisms of better search specification should be improved. Now if your first attempt is not successful, you have to start the search procedure from the very beginning;
  - You can not select more than one filter at once. After each filter the search process starts.
  - There is no connection between simple search and filtered search. Users have to refresh the page in order to change /copy the key word in the filtered search field if they type in simple search field and it is confusing.
  - Translation function is very useful but needs a little bit more explanation how it works of the translation of the word should execute the new resource list without clicking the search button. In the beginning this function is confusing;
  - Significantly improve the filters and the number of repositories used;
  - To be possible to back one step within filter; if I choose dutch and then video, only video materials are left; then I saw that I prefer to have other types of materials in Dutch and I should start with the same word/phrase from the beginning, because back just to Dutch with the same word/phrase is not possible).
  - If you not going back to search, then the same filter applies for new search. Should be more visible for regular user that feature.
  - Autosuggest/ spellcheck
  - autocomplete/ suggestions;
  -

### Task 3: Rate, Comment and Tag Content

#### Scenario:

First search for the word "marketing".

Then use the filter: Language "English-GB".

Then select "The market-led organisation" resource from the list of content.

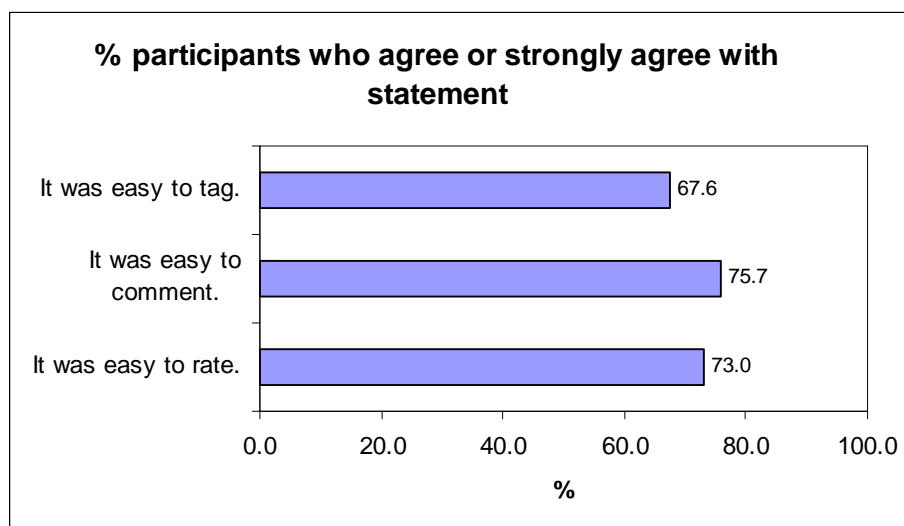
After you have read it, please:

- \* **Rate it**
- \* **Add a Comment**
- \* **Add a Tag**

Once you have completed this task please return to this survey to answer these questions.

### Post-Task Questionnaire for Task 3 - Results

- Please indicate how strongly you agree or disagree with the following statements.



Tagging, commenting and rating still pose problems. From the comments it appears that there is still a confusion about where do to this on the OpenScout site. Clearly

some participants try to tag and comment on the content provider's site instead of OpenScout, and don't then understand why they have to register on that site.

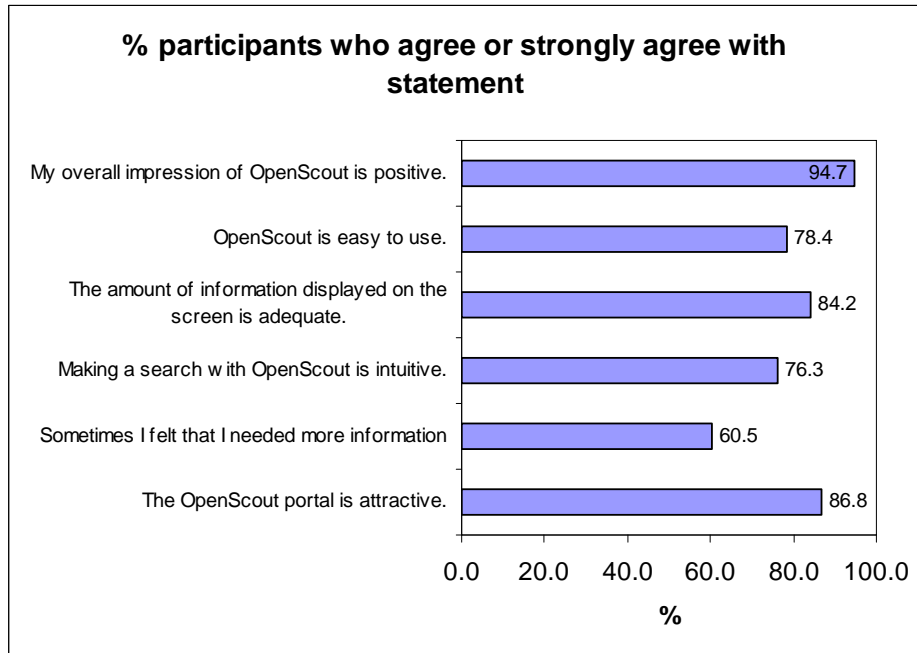
•Any suggestions about how rating, commenting or tagging could be improved?

- a)No need for registration, Is it possible to use Open Scout registration for rating, commenting and tagging.
- b)I don't think a second registration is appropriate.
- c)Titles of the resources could be clickable. The concept of graphs with competences should be explained.
- d)It is not clear now. The option for showing all resources for a given competence does not work for me.
- e)At first I couldn't understand where the tag, rate and comment buttons are.
- f)Comments, rating and tags required additional registration. That makes difficult rating, commenting, and tagging, otherwise menus for them are visible and easy to use.
- g)The picture on the top makes invisible functionality about rating, commenting and tagging below – should be on better place, more visible. In addition, because in original repository there are the same functionality user confuse which to use. Second functionality on the original repository requires password and it confuses user more.
- h)Tags not allowing dashes.
- i)I couldn't find the Market-led organization.
- j)It opens in the same window. Later it is difficult to return back to the search page.
- k)Pressing the button Post (for comment) a message appears "wrong version". Something occurs and when trying to add a tag.
- l)I could not add a tag.
  - m)I completely disagree that I should register to comment, tag or rate some article.

## Post-Evaluation Questionnaire - Results

This questionnaire gives you an opportunity to express your overall satisfaction with the OpenScout portal. Think about all the tasks that you have done while you answer these questions.

- Please indicate how strongly you agree or disagree with the following statements.



Overall users' impression of OpenScout is very positive. There are some features that need to be improved in order to make the use of the Open scout services more user-friendly. About 24% do not find it intuitive to search in OpenScout. 61% believe that information needs to be provided to users in order to use the portal correctly.

- Please list here any improvements you think could be made to the OpenScout portal.

- When certain procedures have to be fulfilled before allowing to rate/comment/tag, I need more instructions what exactly I should do next;
- Open Scout is a great resource. Certainly in order to be a stable provider of management knowledge, it is important a wider repository of articles, books etc.
- Most important buttons should be clearly visible and it would be helpful if some links are coupled with labels.
- May be more statistics about top readed, top rates, top searched, top commented resources will be useful
- I don't have any suggestions for improvement, Open Scout is very user-friendly designed portal;
- They are listed above to the relative tasks.
- Upon registration not checked if an e-mails is mine. This means that I can register every person which I know e-mail.
- Someone can use my e-mail;
- Visibility of rating, comments tagging to be improved;

#### *4.2.1 Portal version 2 Usability Pilot 1 – ITD Teachers*

##### **Pilot Information:**

**Context:** Lecturers and teachers

**Organization:** ITD

**Number of users:** 22

**Evaluation Object:** OpenScout Portal

**Evaluation Objective:** user feedback about the usability of **second** Beta version of OpenScout portal.

**Timing:** 18 -22 July 2011

##### **Deployment Context:**

The Institute of Technology and Development (ITD) Foundation is a nonprofit, nongovernmental organization supporting innovation culture, technology transfer and academia-industry linkages. ITD is engaged in training and educational activities supporting the applications of new technologies in education, focusing on the methodological research and dissemination of best practices related to ICTs. Among the main aims of the ITD are to create bridges between the academic community and industry in Bulgaria for fostering technology transfer.

ITD conducted the pilot tests in cooperation with Sofia University (Center of IST, Faculty of Mathematics and Informatics, Faculty of Economics and Business Administration), involving trainers, students and researchers in the evaluation process.

##### **Deployment Design:**

The pilot tests have been conducted remotely and participants have access to the online questionnaire in the selected period – between 18-22 July 2011. Pilot tests participants were identified earlier and were invited to join the survey via e-mail. Some of the participants were familiar with objectives and scope of the Open Scout project, while the others learned for it for the first time. Therefore a very short description of Open Scout was preliminary provided, as well as a link to the project web-site. The questionnaire was composed of 3 general parts – pre-evaluation including user characteristics data and Internet usage data and post-evaluation, reflecting user experience from tasks, fulfilled on Open Scout platform.

Users followed scenarios for three tasks and provided data using the “OpenScout Usability Pilot 2 - July 2011 – Questionnaires and Task Scenarios” document which was provided online.

-Task 1: Register and Login to OpenScout

-Task 2: Directed Search for Management Resources

### -Task 3: Rate, Comment and Tag Content

First, users answered a Pre-Evaluation Questionnaire in order to provide information which will help us to determine if certain user characteristics influence the OpenScout experience. Then after completing each task they immediately answered the questions related to each task. Finally, users answered the Post-Evaluation Questionnaire about their overall satisfaction with the OpenScout portal.

### **Discussion of Results:**

- The participants were invited to join to the pilot test remotely. Therefore, we can made observations only from the data obtained in the survey report. However, we can conclude that all of the participants completed the required tasks, and the data obtained fulfill the goals of the pilot.
- The pilot test can be assessed as successful because of the :
  - number of users involved: 22 in total;
  - users data – most of the users completed all of the questions/tasks in the pilot survey and provided useful data and comments;
  - users comments – most of the users comments reflect current problems and can lead to the improvement of the Open Scout platform;

### *4.2.2 Portal version 2 Usability Pilot 2 – ITD SME*

#### **Pilot Information:**

**Context:** SMEs

**Organization:** ITD

**Number of users:** 16

**Evaluation Object:** OpenScout Portal

**Evaluation Objective:** user feedback about the usability of **second** Beta version of OpenScout portal.

**Timing:** 18 -22 July 2011

#### **Deployment Context:**

The Institute of Technology and Development (ITD) Foundation is a nonprofit, nongovernmental organization supporting innovation culture, technology transfer and academia-industry linkages. ITD is engaged in training and educational activities supporting the applications of new technologies in education, focusing on the methodological research and dissemination of best practices related to ICTs. Among the main aims of the ITD are to create bridges between the academic community and industry in Bulgaria for fostering technology transfer.

ITD conducted this pilot on SME representatives who are part of their business network.

### **Deployment Design:**

The pilot tests have been conducted remotely and participants have access to the online questionnaire in the selected period – between 18-22 July 2011. Pilot tests participants were identified earlier and were invited to join the survey via e-mail. Some of the participants were familiar with objectives and scope of the Open Scout project, while the others learned for it for the first time. Therefore a very short description of Open Scout was preliminary provided, as well as a link to the project web-site. The questionnaire was composed of 3 general parts – pre-evaluation including user characteristics data and Internet usage data and post-evaluation, reflecting user experience from tasks, fulfilled on Open Scout platform.

Users followed scenarios for three tasks and provided data using the “OpenScout Usability Pilot 2 - July 2011 – Questionnaires and Task Scenarios” document which was provided online.

- Task 1: Register and Login to OpenScout
- Task 2: Directed Search for Management Resources
- Task 3: Rate, Comment and Tag Content

First, users answered a Pre-Evaluation Questionnaire in order to provide information which will help us to determine if certain user characteristics influence the OpenScout experience. Then after completing each task they immediately answered the questions related to each task. Finally, users answered the Post-Evaluation Questionnaire about their overall satisfaction with the OpenScout portal.

### **Discussion of Results:**

- The participants were invited to join to the pilot test remotely. Therefore, we can made observations only from the data obtained in the survey report. However, we can conclude that all of the participants completed the required tasks, and the data obtained fulfill the goals of the pilot.
- The pilot test can be assessed as successful because of the :
  - number of users involved: 16 in total;
  - users data – most of the users completed all of the questions/tasks in the pilot survey and provided useful data and comments;
  - users comments – most of the users comments reflect current problems and can lead to the improvement of the Open Scout platform.

## 5 APPENDIX B: Full Evaluation Reports

### 5.1 Demonstrations and Workshop at the 2011 EFMD Annual Conference

#### Evaluation Plan

**Evaluation Object:** WP4 and WP7 – Demonstrations and Workshop at the 2011 EFMD Annual Conference, Brussels, Belgium

**Evaluation Objective:** Obtain feedback from potential external users of OpenScout in order to improve web portal, services and recruitment effort. The target group addressed is participants in the EFMD annual conference, in general people interested in management education and development and in particular, EFMD members, companies, educational institutions and other associations.

**Method:** During the EFMD Annual Conference OpenScout had a stand, where two people were demonstrating when visitors were interested. Normally one was demonstrating OpenScout while the other one was noting the users' comments in the Demo Evaluation Observer Template. The demonstrators mainly worked with a particular search scenario where all components of the current OpenScout portal could be demonstrated with results and data of high quality (search results, ratings, comments, competences, related tools and tool recommendations). The scenario was as follows:

- Search for the word "**innovation**".
- Click on the first learning object: "The Innovator's DNA" (this is an INSEAD Knowledge article about a professor's research, something easy to read and interesting).
- Let the user a quick read. There is also a video with the professor to watch.
- Then go back to the list and click on learning object #5: "A structural approach to assessing innovation..." (this is an INSEAD research paper in pdf format, not easy to read, more academic).
- Then use the faceted search and click on "learningspace" (because you are looking for ideas for a course and you know that learningspace provides course content).
- Click on learning object #1; "The Concept of Innovation" (which is a course at Open University).
- Optional: You could then hit "**reset**" and then search for "**innovation**" and only look for resources in **German**. Then you could click on an interesting Slidestar presentation.

However, because of limited time and the interest of the visitors in OpenScout in general, only the first two steps were performed followed by an explanation of the tools, the community features, the potential of attracting additional repositories in order to increase the amount of content and other relevant points.

Additionally OpenScout was presented during the workshop “**Learning from Your Office Chair: Virtual Mobility in Internships and Open Educational Resources**”. Description of the session is presented in Annex 1. The workshop was attended by approximately 25 people who were also invited to look at the demonstration.

**Data:** Event, date, location, number of people watching demo, user type, management background, positive and negative comments, overall interest, specific requests for improvement, other comments.

**Feedback:** complete Demo Evaluation Observer Templates and return to WP6

**Timing:** 6-7 June 2011

### Evaluation Results

**Number of people watching the demonstrations:** 14 + 25 participants in workshop

**User Type:** Higher Educational Institutions (deans and directors of business schools, directors of international relations offices of business schools, directors of MBA programmes, teachers) and company representatives

During the demonstration note spontaneous user comments here:

Positive Comments	Negative Comments
<ul style="list-style-type: none"> <li>• It is interesting for us, as the school wants to join innovative initiatives.</li> <li>• Can help you prepare your lectures and find new ideas.</li> <li>• Interesting</li> <li>• Very interesting partners</li> </ul>	<ul style="list-style-type: none"> <li>• Not a lot of content yet</li> <li>• Content only in English</li> <li>• Can't make “complex” searches like “innovation in management”</li> </ul>

**Rate the overall interest during the demo (please circle):**

INTERESTED / NEUTRAL / NOT INTERESTED

All participants were generally interested as demonstrations were made on demand.

**Please note any specific requests for improvements:**

none

**Other comments:**

- I really want to find management related content.
- Do I already find enough material?
- Can you upload your material?
- Is it only learning materials?

- Would be interested in case studies but they are usually not free.
- Looks at different places to find content (“Need to know where”).
- How is OpenScout different from Google Scholar?
- Is it free?
- How much does the service cost?
- What is your eventual goal? Do you want to commercialise it?
- Knows from MIT that the resources are free.
- How about copyright issues?
- What is open content?
- Likes the idea of having an “App”/widget for OpenScout.
- What does OpenScout bring to my Business School?
- Ten years ago there was a similar Swedish project but no idea how it developed.
- I will take a further look at it.
- Look at Khan Academy.

### **User Feedback**

Eleven demonstrations were made for 14 people in total with normally one and sometimes two people per demonstration. Additionally one workshop with 25 participants was organised as a split-up session at the 2011 EFMD annual conference. The users were mainly deans and directors of business schools, directors of international relations offices of business schools, directors of MBA programmes representing the Higher Educational Institutions as user, and to a lesser extend teachers. There were some company representatives as well as representatives of other associations partners of EFMD. These are the typical participants in the EFMD annual conferences. All participants were generally interested in OpenScout with the normal mix of some more interested and some more critical. Most of the comments were in the form of questions showing that the people are not familiar with the concept of open content and have reservations especially about the copyright issues. Some of the users expressed a desire to collaborate with the OpenScout project but wanted to discuss it at their institution first before contacting OpenScout with concrete ideas.

### **Details from the Workshop**

Remarks about Business Models from experience with OCW in Brazil:

- Very good experiences, companies like Wall Mart were sponsoring the production of a few simple open courses. Their benefit was advertising/marketing for the company.
- After publishing these courses the enrolment for paid courses increased.
- Handing out participation certificates (not “real formal certificates”) increased the number of participants. Also it was good to collect data about users (only if they fill in an extended user profile they get the certificate of participation).
- The institute offers the same material for free and paid courses, but for paid courses you get additional tutoring and other services.

- Community features around open content are important so that people can talk about content.

How do we deal with competences in OpenScout? (representation and adding)

Answer by OpenScout:

- Make it simple for users to associate a learning resource with competences (standardised, easy to use interface based on:
  - Competence Taxonomy
  - EQF Level
- Learning resources can be searched according to competences.
- User generated tags to check what we may have missed in the competence taxonomy.

How does user feedback work?

Answer by OpenScout:

- Simple: Tagging, Rating, Commenting => Social Metadata
- More specific: recommend learning resources of persons with similar interests
- Recommend learning objects according to patterns deduced from user behaviour on the platform, e.g. persons who have clicked A also clicked B...
- Sharing with trusted partners

What do you expect when you give learning material away /“out of your control”? Will there be a competition with formal learning?

What problems do you see with copyright issues? How do you solve “ownership” (Who is the owner?)

- OpenScout: Make copyright issues much simpler, current solutions are too complicated

Do you feel if something is free it is of less value?

- Who could pay for good course production?
- You could even share the same material (regarding quantity/quality), if you pay for it, you get additional services (tutoring), if you don't you “just” get the material

Competition between formal and informal learning?

- You should have a good model to certify informal learning, if you have that a “competition” with formal learning could emerge.
- OpenScout: Teaching process has to become much more transparent => In the future low quality material cannot be sold any more. With this transparency users are more flexible to choose between courses and materials.
- Regarding “high-tech” multimedia production/entertainment open content will most likely not be able to compete. But for many scenarios this is not necessary, the competence of the teacher in his material could be more valuable for learning than fancy multimedia production.

### **Ideas for Further Steps**

- Explain Tools page: why tools, how they are structured, don't show the full list of tools, make it expandable
- Add overview of repositories
- Add page about "What is Open Content"? with resources to find more details
- Add complex queries (AND, OR) or advanced search
- Ranking of search results

### **Links to Check**

- <http://ocw.uci.edu/more/>
- <http://www.slideshare.net/kathytam/uc-irvine-and-fgv-ocw-collaboration>
- <http://www.khanacademy.org/>

### **SWOT Analysis Based on Input from Workshop and Demonstrations**

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>• OpenScout is an initiative backed by the profession and may benefit from a specialist image.</li> <li>• OpenScout differentiate itself by being a non-for-profit initiative.</li> <li>• OpenScout answers the need for quality in the results. Results presentation is not biased by commercial ranking priorities.</li> <li>• OpenScout provides a one-stop shop solution for Open Educational Resources in the field of management education.</li> <li>• OpenScout does not replace but complements the existing search engines.</li> <li>• OpenScout offers the users extra services to facilitate the reuse of the materials.</li> <li>• OpenScout promotes the development of user communities.</li> <li>• OpenScout consortium includes some major players in the field of management education.</li> <li>• OpenScout will rely on a network of regional agencies that can achieve a closer proximity with the users.</li> </ul>	<ul style="list-style-type: none"> <li>• Open content resources will always be less abundant; it will result in (much) smaller list of returned search results. This needs to be clearly explained to the users.</li> <li>• Users may have some issues with the IPR (in particular potential contributors).</li> <li>• OpenScout is still a beta version. <ul style="list-style-type: none"> <li>◦ Functionalities are not yet complete.</li> <li>◦ It currently only offers a restricted list of results.</li> <li>◦ Search possibilities are still restricted compared to other engines.</li> <li>◦ The pool of materials is not yet rich enough.</li> <li>◦ A careful screening of the available resources still needs to be done, as some non management related materials still appear.</li> </ul> </li> <li>• OpenScout role is to harvest existing repositories and depends on the quality of their meta tagging for the quality of its searches. The full tagging and referencing functionalities are not yet enabled which may lower the quality of the searches.</li> <li>• The full range of services offered by OpenScout around the search functionalities can be diversely valued by the users.</li> <li>• OpenScout is targeted towards a (largely) non-technical community of users resulting in lack of interest and tolerance for imperfections and shortcomings.</li> <li>• OpenScout differentiation must be clearly communicated to the users to establish the difference with the generalist search engines. However, the language used should be</li> </ul>

	understandable and free of technical “jargon”.
Opportunities	Threats
<ul style="list-style-type: none"> <li>Existing need and demand for specialised search engine in the field of management education</li> <li>Development of Open Educational materials</li> <li>Existing demand for guaranteed quality results</li> <li>Concern about the commercial aspect of search engines (e.g. Google &amp; Yahoo) and the consequences in terms of impartial search results</li> <li>The connection of open content with adaptation and collaboration tools is innovative and may support re-use of open content</li> </ul>	<ul style="list-style-type: none"> <li>Very strong established generalist competitors that benefit from a 100% awareness</li> <li>Strong competition from specialised search engines such as Google Scholar, who may be seen as a direct competitor</li> <li>Lack of understanding of the open education resources specificity</li> <li>Concerns about IPR and rights of re-use of the materials</li> <li>Very high expectations from the users, as every newcomer is benchmarked against Google and Yahoo. Both appear as the market reference and the standard for comparison.</li> <li>Low perceived differentiation between the existing search engines</li> <li>Low involvement from the users who tend to consider the search engine as ancillary. What appears important for them is the results returned by the engine.</li> <li>General opinion that for searches “more is better” which leads to the disqualification of more specialised engines.</li> </ul>

### **Evaluation Impact**

This feedback is being used to improve the web portal, services and recruitment effort. Technical partners are working on improving the search functionality, and adding more relevant management and non-English content.

## **5.2 User Content Tagging Preferences**

### **Evaluation Plan**

**Evaluation Object:** Tagging strategy for learning resources.

**Evaluation Objective:** The objective of this evaluation was to evaluate users' preferences for automatic, expert and user-generated tags of learning objects.

**Method:** Collection of participants' preferences on an interactive web interface that presents summaries of learning objects and tags.

**Data:** 563 learning objects from OpenScout available resources, 1692 tags assigned by the owner (expert/author) of each resource summing up to 3150 tag assignments.

**Feedback:** Web interface.

**Timing:** 7 March - 21 March 2011

### **User Instructions**

We kindly ask you to collaborate with our research by completing a short "tagging evaluation".

The evaluation should take around **25-30 minutes**.

You begin by entering a few information about yourself: Age, sex and if you are a student.

#### **First phase:**

You will be presented with a summary of a learning object and around 10 tags. Your task here is to **read the text and choose at least 3 tags** that you think that better fits the description. After clicking on the desired tags, confirm your choices and you will get a new text to be evaluated. We kindly ask you to evaluate at **least 10 objects**. After evaluating 10 objects you will be presented with a button to go to the second phase.

#### **Second phase:**

You will be presented with a summary of a learning object and now your task is to **read the text and give (write) 5 tags** that you think better suits the description and that would facilitate you to find this object later. Advice: try to avoid multiple word tags. Instead of one single tag as "Linear Equation", enter 2 different tags. Again we kindly ask you to evaluate **at least 10 objects**.

Thank you for your collaboration.

The link to the evaluation:

<http://openscout.l3s.uni-hannover.de/eval/evaluationStart1.php>

There are two parts to the evaluation.

### **Part I**

The goal of this experiment was to compare the automatically generated tags against the ones provided by experts. This evaluation is a user study in which each participant was presented with basic information regarding a learning object, namely, the title and an abstract that varies from 20 up to 200 words (see **Figure 1**). The format of the original resource (e.g. video, image, presentation or document) was not transparent to the participant in order to align the nature of the evaluation and to avoid biased judgments of the tag relevance based on non computer-understandable information. In addition to that, the participants were presented with ten tags to be evaluated. From the ten tags presented, five tags were originally added by the expert/author of the content, while the remaining five were the top ranked automatically generated ones. The tags were presented in a random order and their origin was not disclosed to the participants. Each participant was then instructed to read the title and the description of the learning object and finally choose at least three tags from the set of ten suggested tags. Once the submission of the form is completed the participant was presented with a new object to be evaluated. We kindly asked for each participant to repeat the process for at least ten objects, however, we did not limited the maximum of their contribution to the study.

How does a firm emerge as 'leader of the pack'? Why do most of the small firms so common in the early years of new industries disappear? This unit looks at how and why change occurs through the industry life cycle, at the role of innovation and at how production costs, demand and technology interact to shape industrial structure.

- tags (click to select) -

change

role

markets

unit

industrial

technological

innovation

industry

costs

firm

Confirm and proceed >

*Figure 1: Each participant was instructed to choose at least three tags from the set of ten suggested tags. Five tags were originally added by the expert/author of the content, while the remaining five were automatically generated. The tags were presented in a random order and their origin was not disclosed to the participants.*

### **Part II**

Similarly to **Part I**, in this user study, each participant was presented with the title and an abstract of a learning object. Once again, due to same reasons as presented

before, the format of the original resource (e.g. video, image, presentation or document) was not transparent to the participants. Each participant was then instructed to read the title and the description of the learning object and finally input five tags she thinks to be relevant for describing the object, as depicted in **Figure 2**. Once the submission of the form was completed, the participant was presented with a new object to be evaluated. Each participant was asked to repeat the process for at least ten objects.

What is consciousness? How does the brain generate consciousness and how can a science of the mind describe and explain it adequately? This unit will introduce you to the slippery phenomenon that is consciousness, as well as some of the difficulties consciousness presents to science and philosophy.

- add tags -

1)  2)  3)

4)  5)

Figure 2: Participants were instructed input five tags they think to be relevant for describing the LO.

## **User Feedback**

### **Part I**

From the user study in Part I we collected the feedback of 115 participants (43 female and 72 male), 100 of them explicitly stated to be students. Their average age was 24, ranging from 20 to 53 years old. In total the participants evaluated 1,134 objects covering 478 unique ones. Also, in total 4,035 tags were chosen to represent the documents, in average each participant picked 3.56 tags per document. As explained in the setup of this evaluation, the tags exposed to the participants were originated from two different sources, the expert who created the learning material and a second set from the automatic tagging method. It's important to note that the tags from each group were always presented to the participants in an equal distribution to preserve the fairness of the study.

Additionally when a participant chose a tag that was in both automatic generated set and the Experts' set we computed this choice as two tag assignments as outlined in Section 3. Although the participants chose 4,035 tags, in our experiments, we used a total of 4,939 tag assignments. Out of the 4,939 tag assignments, 67.5% of them were originated by the automatic method and 32.5% by the experts.

To validate the significance of the results achieved, for each participant, we took the averages of the distribution of automatically generated and Expert's tag sets. With two groups of 115 samples we performed the two-tailed t-test that confirmed statistically the significant difference of Automatic tags mean (68.2%) and Expert's keywords mean (31.8%).

## **Part II**

For Part II, the participants evaluated 832 objects covering 454 unique one. In this phase, where the participants were instructed to freely choose terms that best classify the objects, 4,745 tags were generated (1,868 unique tags). Using these data we now have three different sets of tags: automatic tags, experts' tags and learners' tags. By validating the learners' generated tags against the other sets we found an overlap of 38.4% with automatic generated tags and 20.7% with the experts' tags.

Additionally, in only 8.9% of the cases, a tag occurs in all three sets. At this point we are just considering the whole sets of tags and not the precision of them regarding each resource. These results complement Part I by firmly stating that on average the automatic generated tags are closer to the ones used by learners. By considering only the results from those participants that stated to be students (i.e., 100), the numbers do not change significantly. The overlap with automatic generated tags increases slightly to 39.04% while the overlap with the experts' tags remains on the same levels (20.3%). The results are summarized in the Table 4.

*Table 4: Tag Assignment (TAS) results for the user evaluations. The Sets rows show the number of TAS that were chosen by the participants that overlapped with TAS given by the experts, or with the automatic tagging method and the respective recall measure.*

		Part I		Part II	
	Participant's TAS	4939	-	4745	-
Sets	Automatic	3336	67.5%	1824	38.4%
	Experts	1603	32.5%	983	20.7%

## **Evaluation Summary**

The most straightforward analysis of these results shows a clear preference of the participants for the tags that were automatically added. Thus, it is also reasonable to conclude that these tags are more relevant to the participants. Through the outcomes of this evaluation we interpret that the automatic generated tags are, in general, more descriptive and more useful for the learners than experts' tags. Additionally, it is reasonable to assume that these learners, when searching for one of these documents would (with a higher probability) use a tag that was automatically

generated rather than the experts' tags. The same assumption is valid for the case of browsing resources in a hierarchical classification or in a facet browsing interface.

The user studies conducted in Part I and II exposed how additional information captured by the automatic annotations are perceived by the learners, and explore the usability improvements of the collaborative learning system. The results from the first user study setup (Part I) clearly demonstrate the preference of the participants for tags produced by the automatic tagging method. This means that, the produced tags reflects better the participants' preferences in comparison to the experts' keyword assignments.

The most probable reasons are, first, the aforementioned problem that a tag assignment is not always clear to users other than its creator. Second, learners usually have a viewpoint that differs from the experts, thus they are more prone to avoid terms that are too specific or that they would probably not remind later. Finally, the terms given by the automatic tagging, extracted from search results' snippets, represent better the wisdom of the crowd since these results are originally extracted from multiple resources.

It is also important to remark that the search results themselves are consequence of ranking algorithms that exploit collective knowledge and preferences. In principle, the results of the second user study (Part II) support the same benefits. The goal of this phase was to prevent any possible biases in the first part. We hypothesize that, when asking a participant to tag a learning object, we are implicitly observing which tags the participants would use in a collaborative social learning environment, and indirectly potential terms to query or browse for a learning object.

Bearing in mind the overall results obtained in the evaluation, the most important consideration to highlight is the potential benefits produced by the information delivered by the automatic tagging method.

### **Evaluation Impact**

The evaluation of the automatic tagging method for business and management learning resources provided valuable feedback about the usability of a service that can automatically enrich learning resources metadata. The evaluation has proved that the automatic generated tags may help the students to search, browse and find relevant learning resources. Though the results are very optimistic, it is necessary further evaluations to analyse different strategies and to understand the feasibility of deploying the automatic tagging service for end-users in the Openscout Portal.

### **5.3 Tool Library OER11 Workshop**

#### **Evaluation Plan**

**Evaluation Object:** Tool Library

**Rationale:** Presentation of the tool library to members of the OER community and collection of feedback about tools for finding and adapting OER

**Evaluation Objective:** User feedback on tools for finding and adapting learning content

**Method:** Workshop

**Data:** Entry in the Tool Library

**Feedback:** Plenary discussion

**Timing:** May 12<sup>th</sup>, 2011

#### **Evaluation Summary**

The participants of this workshop were approximately 50 educators and researchers in the area of Open Educational Resources (OER). Alexander Mikroyannidis and Alexandra Okada from the UK Open University demonstrated the OpenScout tool library as an open online environment for sharing OER adaptation practices and experiences. The participants were then invited to share their tools for finding and adapting OER. This input was captured in the tool library and is available at: <http://openscout.kmi.open.ac.uk/tool-library/pg/pages/view/2111/>

The following tools were discussed during the workshop:

#### **Tools for finding OER**

##### **FolkSemantic**

Analyzes the content of your web page. Helps users find resources that match their interests. Recommendations adapt based on usage and feedback data. Facilitates discussion, sharing, and rating of resources. Configure the number, appearance, and sources of recommendations.

##### **XPERT**

XPERT (Xerte Public E-learning ReposiTory) is a JISC funded rapid innovation project (summer 2009) to explore the potential of delivering and supporting a distributed repository of e-learning resources created and seamlessly published through the open source e-learning development tool called Xerte Online Toolkits.

The aim of XPERT is to progress the vision of a distributed architecture of e-learning resources for sharing and re-use.

### [Jorum](#)

Through Jorum, you can find, share and discuss learning and teaching resources, shared by the UK Further and Higher Education community.

### **Tools for remixing and adapting OER**

#### [OER Glue](#)

OER Glue can be used to efficiently assemble courses and teach online by “glueing together” open education resources (OERs) and integrating with popular online services including Google Documents, Blogs, Facebook, Twitter, and discussion and assessment tools.

#### [OERbit](#)

OERbit is a Drupal-based publishing platform to share publicly licensed learning resources (OER/OCW) with the world.

#### [LabSpace](#)

The OpenLearn website gives free access to learning materials from higher education courses. Edit the materials in the LabSpace. Collaborate with others and publish new versions of the learning materials to share with the world.

### **Evaluation Impact**

The workshop provided us with useful feedback from members of the OER community regarding the adaptation of OER. In addition, the participants populated the tool library with new tools for finding, remixing and adapting OER.

## **5.4 Tool Library ED-MEDIA Workshop**

### **Evaluation Plan**

**Evaluation Object:** Tool Library

**Rationale:** Presentation of the tool library to members of the TEL community and collection of feedback about tools for finding and adapting OER

**Evaluation Objective:** User feedback on tools for finding and adapting learning content

**Method:** Workshop

**Data:** Entry in the Tool Library

**Feedback:** Plenary discussion

**Timing:** June 19<sup>th</sup>, 2011

### **Evaluation Summary**

The participants of this workshop were approximately 20 educators and researchers in the area of Technology-Enhanced Learning (TEL). Alexander Mikroyannidis and Alexandra Okada from the UK Open University introduced participants to the notion of social networking for supporting the collaborative adaptation of open educational resources (OER) and showcased the OpenScout tool library as a proof of concept. The participants had a chance to discuss the challenges involved in localising, adapting and improving existing educational materials on the web, as well as share OER tools and repositories through the tool library.

The feedback collected from the participants of the workshop was captured in the tool library and is available online at: <http://openscout.kmi.open.ac.uk/tool-library/pg/pages/view/2552/>

In particular, the following tools were discussed during the workshop:

#### **Tools for finding OER**

##### **Language Box**

Language Box is a new way of storing, managing and publishing Language teaching resources on the web. Language Box is being used by participants in the Community Cafe project. This project is funded by the JISC and is working to create a collection of resources for use by community languages teachers across the UK.

##### **Humbox**

HumBox is a new way of storing, managing and publishing Humanities teaching resources on the web. This project is part of a wider Open Educational Resources initiative funded by the JISC (Joint Information Systems Committee) and the HEA, to showcase UK Higher Education by encouraging teachers within HE institutions to publish excellent teaching and learning resources openly on the web.

##### **Ariadne**

The ARIADNE Foundation was created to exploit and further develop the results of the ARIADNE and ARIADNE II European Projects, which created tools and methodologies for producing, managing and reusing computer-based pedagogical elements and telematics supported training curricula.

### LORO

LORO contains resources for language teaching available to download and reuse, including those used by the Department of Languages at the Open University, UK.

### GLOBE

GLOBE (Global Learning Objects Brokering Exchange) is a one-stop-shop for learning resource broker organizations, each of them managing and/or federating one or more learning object repositories. GLOBE makes a suite of online services and tools available to its members for the exchange of learning resources.

### KLASCEMENT

KlasCement is a social network portal for exchanging learning objects for class and school use, as well as promoting cooperation between everyone involved in education. KlasCement is supported by the Flemish government and several educational partners.

### **Evaluation Impact**

The workshop provided WP3 with an insight into the views of the TEL community regarding finding and adapting OER. The participants discussed the challenges involved in these tasks and provided us with recommendations about OER repositories.

## 5.5 OpenScout Scenario Prioritization

### Evaluation Plan

**Evaluation Object:** OpenScout Scenario Prioritization.

**Evaluation Objective:** Inform OpenScout developers of which possible functionalities are the most useful from the user point of view and how users would prioritize them.

**Method:** Collection of feedback from 8 User Partners via Google spreadsheets.

**Data:** rating of 37 Scenarios describing services and functionalities not yet provided in the portal.

**Feedback:** Google spreadsheets.

**Timing:** 21 July – 18 August 2011

### User Instructions

Email was sent to OpenScout User Partners: INSEAD, EFMD, ESCP, ITD, IMD, SPK, JSI and VMU.

OpenScout developers need to know which possible functionalities from the attached list are the most useful from the user point of view and how we would prioritize things.

Please read through the attached document and give each scenario a score for usefulness and priority in this spreadsheet in your designated columns:

[https://spreadsheets.google.com/spreadsheet/ccc?key=0AnRndtRJsS40dGlgME9abjZZeGFCU0pfa3ZISjA0RHc&hl=en\\_GB](https://spreadsheets.google.com/spreadsheet/ccc?key=0AnRndtRJsS40dGlgME9abjZZeGFCU0pfa3ZISjA0RHc&hl=en_GB)

Definitions for Usefulness and Priority:

1=very low, 2=low, 3=medium, 4=high, 5=very high

Usefulness = being of practical use

Priority = which functionalities/scenarios should be added to the portal the fastest

This information is needed by the end of July. If you cannot do this yourself, please ask someone else from your institution to participate.

Let me know if you have any questions.

\*\*\*\*\* attached document \*\*\*\*\*

Short description of 37 Scenarios describing services and functionalities not yet provided in the portal.

## Publishing Scenario

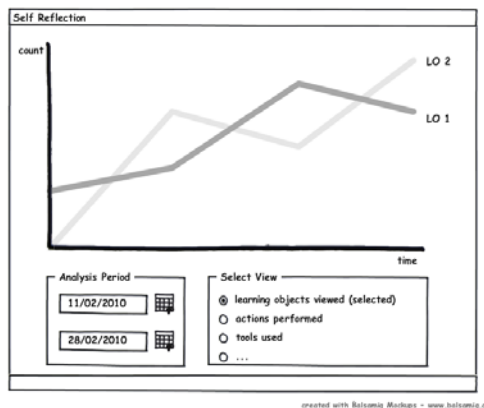
When the user wants to publish new or adapted material, he clicks on the publish button in the OpenScout portal. Users can choose between two different options to upload their content. If they have the file local on their computer they choose “Upload a File” which allows them to upload the file on their computer to OpenScout . If the user doesn’t have the file on their own computer but want to publish a resource on the internet, they need the link or URL to this resource. By clicking on “Provide a Link” the users are guided to a new page, where they can include the URL to the OpenScout System.

## Enriching metadata of the resources through the portal

Allow user to add additional information to the learning resources through the openscout portal. Additional information consists of the cultural specification as well as competency information.

## User Self Reflection in OpenScout

Show users graphs of their actions over time. For example, how many resources they have viewed, or how many times they have used tools.



## Recommendations of content

Present the user with recommendations of new content based on similar content recently viewed.

## Display a list of tools according to a tool category

*“Fred has found some interesting content but wants to adapt it for use in the learning platform favoured by his institution. This requires converting the collected pdf and html resources into an archived bundle for distribution. The tool list panel in OpenScout allows Fred to browse the tools described and using a dropdown list filter the displayed tools to ‘Adaptation/Modification’.”*

## Display the most recommended or most highly rated tools and scenarios

*“Jane is browsing the OpenScout portal looking for material to use in her upcoming training seminar for understanding change management in European businesses.”*

*Highlighted in the tools panel is a list of the most recommended tools and underneath that a list of the most highly rated scenarios for adapting OER resources.”*

### **Display a list of possible tools useful for content**

*“Jane is now looking at a page for a specific item (content) after running a search in the portal. At the side of the page is a small list of tools that may be useful for this item (e.g., for a word file suggest suitable tools for that format type ).” Also the license of the resource is taken into account and we wouldn’t recommend tools for a resource that has restricted rights (only allowed to be used as it is without modifications etc.).*

### **Search for a tool**

*“Fred is now thinking about translating some of the content he has found with a colleague who works in Brussels. He needs to find tools for translation and communication and asynchronous exchange of comments. He first uses a search box on the tools panel to query for “french language translation” and then “asynchronous communication”. He browses the results pages and chooses to order the results by tool category. He remembers a colleague talking about Google Translate in the past so he also searches for “google translate” and finds the page where this tool is described and discussed.”*

### **Find scenarios that use this tool**

*“Jane is interested in one of the tools recommended on the portal. A link/icon/button near the recommendation links her to “how is this used?”. This shows her a list of scenarios where this particular tool is used to adapt OER material. She can then read and browse the descriptions and discussions to see if it might be useful for her.”*

### **Search content adaptation scenarios**

*“Fred is thinking about how to use all of the great content he has found in OpenScout. He wonders if other people have tried to adapt content for use in industry/organisations that was originally developed for higher education institutions. Using the search adaptation scenarios box on the tools panel he queries for “using university material for business” which returns a list of links to scenarios where people are discussing adapting university material.”*

### **Recommend tools**

Wherever a tool is displayed (either in conjunction with an individual piece of content or the list on the tool panel) then a link/icon/button is shown to allow logged in users to make that tool a recommended tool. This allows us to show most recommended tools in the tool tab.

### **Add friends**

The portal displays a list of users in the community page. From this list a user clicks on a link ('add friend') which creates a friend relationship between them. User can also manage friends by deleting them from their list of friends in the 'Friends' tab.

### **Join interest group**

The groups tab in the community page lists all of the groups. Clicking a name of the group takes you to more details on the group and you can choose whether to 'Join group' (or leave group).

### **Recommend tool/scenario/content to interest group**

When viewing content or a tool or a scenario, then a logged in user has the option to recommend the content or scenario to an interest group.

### **View recent activities of a user or group**

Display the recent activities of a user or group.

### **Group interaction**

Support group discussions. Show the resources recommended to an interest group and post comments about other's recommendations.

*“In an interest group (for example for discussing the role of OER in Mediterranean area) the users could raise new subtopics to discuss and post comments to other users postings. If another user has shared a resource within this group, there would be link to the resource and a small description linked to the message of that user. You would have the option to reply to this posting as if it was any other type of posting.”*

### **View /manage your personal profile**

*Edit your personal profile. “Additionally you could see your latest activities in the community area (your latest friend additions, groups, discussions in groups etc.”*

### **Enrichment of learning resources with competence taxonomy elements**

Experts add competence information (competences & EQF levels) from the competence taxonomy to learning resources.

### **Bottom-up tagging with information about purpose, problems or context**

*“Fred has found some interesting content that helps him to solve some concrete problems in his company. He uses the competence tagging interface and he chooses the “problem” type in the dropdown-list and adds his tags.”*

### **Competence-based search and browsing**

*“After finding learning resources via normal full text search Mary would like to find more resources that help her to improve her project management skills. She uses the competence-based search to find resources about project management on a professional level (EQF 7 & 8).”*

### **Accessibility validation scenario**

This service validates resources from the OpenScout federation in terms of their accessibility and adds this information to the metadata.

### **Personalized recommendation of learning resources based on competence information**

*“Martha is using the OpenScout environment for some weeks now. She is interested to receive more personalized information about interesting resources. Therefore she fills out a self-assessment questionnaire and defines a target competence level for several competences. After this process the OpenScout environments proposes learning resources that can help her to reach her target competence level. The system informs her about new resources also via e-mail”.*

### **Personalized recommendation of learning resources based accessibility requirements**

Support personalized recommendation of learning resources based accessibility requirements.

### **OpenScout Search & Translate**

Combine data from repositories and automatic translation services in order to provide multilingual versions of contents description (metadata). This facilitates and promotes contents usage despite of the content actual language.

### **Book Search**

Combine keyword-based search in federation and Amazon-like engine in order to discover books related to searched topics.

### **Employment & OpenScout (content to jobs)**

The user looks for contents by keywords

The system returns contents + “some jobs offers”, these jobs are “supposed” to require (some of) the competences offered by contents resulting from the user’s search.

For example, search for “marketing”

The system returns:

- Contents dealing with marketing result1, ..., resultN +
- Job1, ..., JobM

Where Job-i requires (some) “marketing” competence offered by result1, ..., result-N

### **Employment & OpenScout (jobs to content)**

Search for jobs is presented i.e. as an additional kind of supported search

The user looks for jobs by position

The system returns job offers + some contents that should support acquisition of competences for such jobs.

For example, search for “test manager”

The system returns:

- Job offers for “test manager” +
- Contents dealing with testing and/or management

### Search in Online Business Magazines (Open 2 RSS Feeds)

Find short articles related to searched topics. Appealing because users can get access to published business articles that are not stored in a database.

### Term Extraction

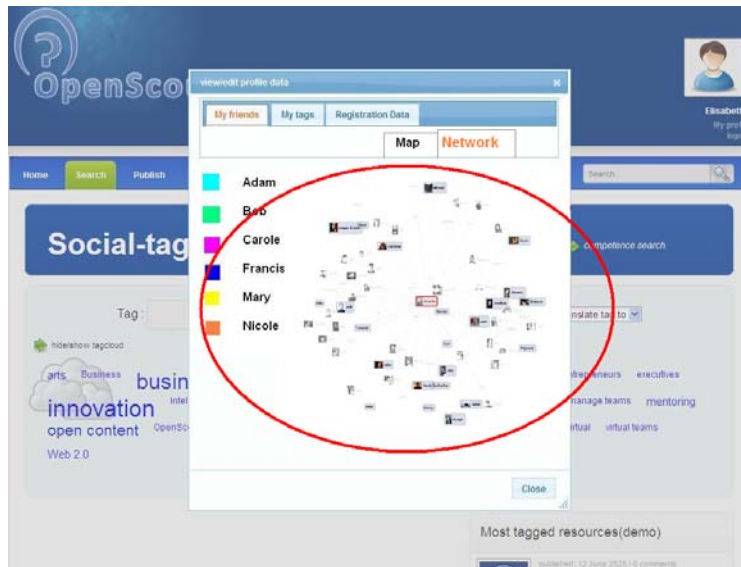
Term Extraction would provide a list of significant words or phrases extracted from a document (e.g. abstract of learning material). Selected keywords could be highlighted in the text, thus allowing better impression about the relevance of learning material.

### OpenScout People locator

Show where people in the group you belong to are located (googlemaps).

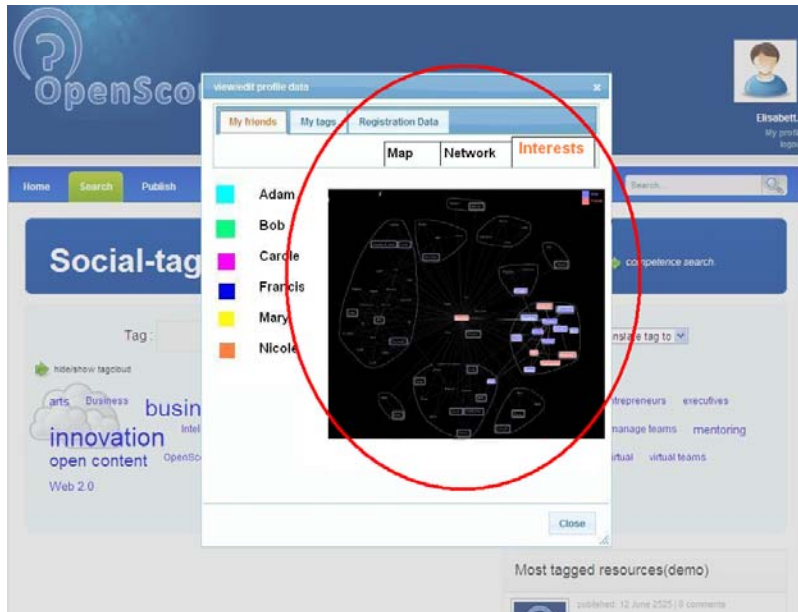
### OpenScout Friend Network Visualization

Show visualization of network of friend relationships. Makes it easier to find people. Network could show who is friends with whom.



### OpenScout Interests Network Visualization

Show visualization of network of peoples' interests. Making it easier to find people with similar interests



### **OpenScout Competences Network Visualization**

Show visualization of network of peoples' skills. Making it easier to find people with a particular skill/competency.

### **OpenScout Content Network Visualization**

Show visualization of network of who has commented or rated the same material. Making it easier to find people with similar interests.

### **OpenScout Dictionary**

Allow a user to select a word they don't understand, and have a window pop up with the definition.

### **Provide RSS Feeds from OpenScout of Newly Added Content**

New content added to the OpenScout repository after harvesting is automatically published through an RSS Feed. Any user can subscribe to this feed and sees the latest added learning objects on top of the feed.

### **Make OpenScout content metadata searchable through Google**

The most relevant metadata of the OpenScout learning resources (those shown in the detail view of a resource in the portal) are made accessible for Google and other search robots. When a user clicks on the results in the search engine's result page s/he should be redirected to the content detail view of the respective content in the OpenScout portal.

## **Evaluation Results**

Input was received from 8 User Partners: INSEAD, EFMD, ESCP, ITD, IMD, SPK, JSI and VMU.

The results are presented in order of decreasing **priority** (sorted by priority, then usefulness). The Priority level is determined by the total Priority score; for example, if all 8 user partners rated “publishing scenarios” as very high (5) the score would have been 40. If they had all rated it high (4) the score would have been 32. Thus a score above 36 indicates that the majority rated it very high.

<i>Definitions for Usefulness and Priority: 1=very low, 2=low, 3=medium, 4=high, 5=very high</i>	<b>Usefulness Total</b>	<b>Priority Total</b>	<b>Priority Level</b>
<b>Publishing scenario</b>	38	39	very high
<b>Make OpenScout content metadata searchable through Google</b>	36	34	high
<b>Search in Online Business Magazines (Open 2 RSS Feeds)</b>	35	34	high
<b>Enrichment of learning resources with competence taxonomy elements</b>	32	34	high
<b>Recommendations of content</b>	34	32	high
<b>Bottom-up tagging with information about purpose, problems or context</b>	32	32	high
<b>Recommend tools</b>	32	31	high
<b>Competence-based search and browsing</b>	30	31	high
<b>Display a list of possible tools useful for content</b>	29	31	high
<b>OpenScout Dictionary</b>	33	30	high
<b>Find scenarios that use this tool</b>	29	30	high
<b>Search content adaptation scenarios</b>	29	30	high
<b>Group interaction</b>	29	30	high
<b>OpenScout Search &amp; Translate</b>	31	29	high
<b>Personalized recommendation of learning resources based on competence information</b>	30	29	high
<b>Term Extraction</b>	30	29	high
<b>View /manage your personal profile</b>	28	29	high
<b>Display the most recommended or most highly rated tools and scenarios</b>	28	28	medium
<b>Provide RSS Feeds from OpenScout of Newly Added Content</b>	28	28	medium
<b>Join interest group</b>	25	27	medium
<b>Enriching metadata of the resources through the portal</b>	28	26	medium
<b>Search for a tool</b>	28	26	medium
<b>Recommend tool/scenario/content to interest group</b>	26	26	medium
<b>Display a list of tools according to a tool category</b>	25	24	medium
<b>Accessibility validation scenario</b>	26	23	medium
<b>Book Search</b>	23	22	medium
<b>OpenScout content network visualization</b>	24	21	medium

<b>Personalized recommendation of learning resources based accessibility requirements</b>	22	21	medium
<b>Add friends</b>	17	19	low
<b>View recent activities of a user or group</b>	18	17	low
<b>OpenScout Interests Network Visualization</b>	18	17	low
<b>OpenScout competences network visualization</b>	18	17	low
<b>User Self Reflection in OpenScout</b>	16	16	low
<b>Employment &amp; OpenScout (content to jobs)</b>	19	15	low
<b>Employment &amp; OpenScout (jobs to content)</b>	17	14	low
<b>OpenScout People locator</b>	16	14	low
<b>OpenScout Friend Network Visualization</b>	16	14	low

### **Evaluation Impact**

This evaluation has just been completed. It was carried out to inform OpenScout developers of which possible functionalities are the most useful from the user point of view and how users would prioritize them. OpenScout developers will now have to balance this user feedback with the services and deadlines set out in the DOW.

## **5.6 Adapting Learning Content for Higher Education (ongoing)**

### **Evaluation Plan**

**Evaluation Object:** Tool Library

**Rationale:** Bringing together teachers from Higher Education institutes across Europe and allowing them to share their views and experiences about the adaptation of learning resources

**Evaluation Objective:** User input on the strategies and tools for adapting learning content

**Method:** Online asynchronous discussions

**Data:** Focus group discussion forums in the OpenScout Tool Library

**Feedback:** Contributions to online discussions

**Timing:** Started in July 2011 and is ongoing

### **Evaluation Status**

This is an ongoing pilot, aiming to bring together teachers from Higher Education institutes across Europe and allow them to share their experiences regarding the adaptation of learning and training content. The pilot started on July 2011 by extending an invitation to teachers of the University of Sofia. A focus group was then setup for them in the tool library (<http://openscout.kmi.open.ac.uk/tool-library/pg/groups/2620/higher-education-teachers/>). Through this group, we have started collecting the input of participants around the following topics:

4. What tools or software do you use for adapting learning material? E.g., This may be desktop software or online services for converting, modifying, collaborating etc.
5. What is your strategy or procedure for adapting learning materials? Does your institution have policies regarding formats, software or reuse of materials that influences your choices?
6. What type of support do you have available when adapting learning materials? How could different support make adaptation easier? E.g., from colleagues, technicians, social contacts, external communities etc.

## **5.7 Competence Tagging (ongoing)**

### **Evaluation Plan**

**Evaluation Object:** Competence Tagging

**Evaluation Objective:** examine the usefulness and usability of several services that deal with tagging learning resources in OpenScout

**Method:** Online asynchronous competence tagging, online surveys. Pilot is run online by OUNL. Participants are a mixture of users internal and external to the OpenScout project.

**Data:** Competence tags, competence tags judgements, and survey responses

**Feedback:** final report summarizing pilot

**Timing:** May 16<sup>th</sup> – ongoing

### **User Instructions**

#### **OpenScout**

OpenScout stands for "Skill based scouting of open user-generated and community-improved content for management education and training". OpenScout aims at providing an education service on the internet that enables users to easily find, access, use and exchange open content for management education and training. OpenScout can be used by learners directly but also by training and education institutions that search for learning content to be integrated into their learning offerings. More info at: <http://www.openscout.net>

#### **Evaluation-study**

In this evaluation-study we want to examine the usefulness and usability of several services that deal with tagging learning resources in OpenScout. Furthermore, in this way several learning resources will be enriched with metadata that can be used for further evaluation studies within OpenScout.

It is therefore very important that we can count on your participation during this evaluation-study. We would like to thank you in advance for your participation. Please contact us if something needs further clarification.

Best regards

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### Structure of evaluation

This evaluation consists of 6 steps which will be conducted within 6 weeks. We expect you to invest approximately 6 hours in this period. Each step consists of two consecutive tasks.

### Register

#### 1. [OpenScout]

You need to register at the OpenScout demonstrator **before** you can participate in the evaluation.

To do so, please go to: <http://openscout.dat.demokritos.gr/projects/openscout-portal/alpha-2/> and register. You will find the respective link in the 'Logon' panel located in the right column of the start page.

#### 2. [Slidestar]

Some learning resources – namely those in Slidestar - can only be accessed if you register at Slidestar and use your own credentials or the hereafter – by us provided - credentials. You don't need to do this in advance!

A link with the learning resource automatically directs you to a pop-up window where you can enter your Slidestar credentials or our credentials (email:marco.kalz@ou.nl, password: xxxx).

### Step 0

A pre-evaluation questionnaire gathers your background. This questionnaire is part of all OpenScout evaluation-studies. You're requested to provide your background. This will take about 5 minutes. For this questionnaire, you'll receive an invitation by mail.

### Step 1 & 2 – competence-tagging

Step 1 and Step 2 both involve the same set of tasks. For both steps:

- a. You are requested to tag 20 learning resources concisely with one or more competences from the competence taxonomy, which has been constructed within OpenScout (see document openscout-taxonomy-pilot.pdf) and the European Qualification Framework (EQF) (see document EQF.pdf). This task will take about one hour.

For this task you need to use the link to the competence-tagging service as will be provided in a separate mail to you.

Go to the competence-tagging service, login, and follow the provided instructions:

- (i) review and examine the learning resource. If a learning resource is in Slidestar, you first need Slidestar-access (see 'Register' in 'General instructions to participants').
- (ii) select a suitable category AND competence for this resource
- (iii) position the resource on the competence's EQF range
- (iv) repeat (ii) for another competence tag OR proceed to the next learning resource

- b. You are requested to fill in a questionnaire with assertions on competence-tagging. This will take about 10 minutes. For this questionnaire, you'll receive an invitation by mail.

### **Step 3 & 4 – purpose-tagging**

Step 3 and Step 4 both involve the same set of tasks. For both steps:

- a. You are requested to tag 20 learning resources concisely with one or more purposes you see for learners in studying this learning resource. In other words: “What are possible reasons for learners to use this learning resource during their study?”. You can edit your tags with free text. This task will take about one hour.

For this task you need to use the links to the purpose-tagging service as will be provided in a separate mail to you.

Go to the purpose-tagging service, login, and follow the provided instructions:

- (i) review and examine the learning resource. If a learning resource is in Slidestar, you first need Slidestar-access (see ‘Register’ in ‘General instructions to participants’).
  - (ii) enter/edit a suitable purpose tag for this resource
  - (iii) repeat (ii) for another purpose tag OR proceed to the next learning resource
- b. You are requested to fill in a questionnaire with assertions on purpose-tagging. This will take about 10 minutes. For this questionnaire, you'll receive an invitation by mail.

### **Step 5 – judge competence-tagging**

- a. You are requested to judge existing competence-tags for 20 learning resources. For this task, you fill in a questionnaire containing learning resources and their associated competence-tags. You judge each competence-tag for each learning resource. This task will take about one hour. During this task, you can consult the service with the learning resources and both documents you've used earlier during competence-tagging in steps 1 & 2. You can access the learning resources via direct links which are included in the questionnaire. If a learning resource is in Slidestar, you first need Slidestar-access (see ‘Register’ in ‘General instructions to participants’). One document contains the OpenScout competence taxonomy (see document `openscout_ctaxonomy_v1-0.pdf`) and the other document describes the European Qualification Framework (EQF) (see document `EQF.pdf`). For this questionnaire, you'll receive an invitation by mail.
- b. You are requested to fill in another questionnaire with assertions towards judging competence-tagging. This will take about 10 minutes. For this questionnaire, you'll receive an invitation by mail.

### **Step 6- judge purpose-tagging**

- a. You are requested to judge existing purpose-tags for 20 learning resources. For this task, you fill in a questionnaire containing learning resources and their associated purpose-tags. You judge each purpose-tag for each learning resource. This task will take about one hour. During this task, you can consult the service with the learning resources. You can access the learning resources via direct links which are included in the questionnaire. If a learning resource is in Slidestar, you first need Slidestar-access (see 'Register' in 'General instructions to participants'). For this questionnaire, you'll receive an invitation by mail.
- b. You are requested to fill in another questionnaire with assertions towards judging purpose-tagging. This will take about 10 minutes. For this questionnaire, you'll receive an invitation by mail.

### **Evaluation Status**

This evaluation is ongoing and results will be reported in the next deliverable.