

**ECP-2006-EDU-420002**

**EdReNe**

**Expert workshop 1 on repository strategies:  
program, list of participants and proceedings**

*Revised version – July 2008*

<b>Deliverable number</b>	<i>D-3.1(2)</i>
<b>Dissemination level</b>	<i>Public</i>
<b>Delivery date</b>	<i>12 July 2008</i>
<b>Status</b>	<i>Final – revised version July 2008</i>
<b>Author(s)</b>	<i>Tommy Byskov Lund &amp; Leo Højsholt-Poulsen</i>



***eContentplus***

This project is funded under the *eContentplus* programme<sup>1</sup>,  
a multiannual Community programme to make digital content in Europe more accessible, usable and exploitable.

---

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

## Contents

<b>CONTENTS</b> .....	<b>2</b>
<b>1 INTRODUCTION</b> .....	<b>3</b>
<b>2 CONCLUSIONS</b> .....	<b>4</b>
<b>3 AGENDA</b> .....	<b>5</b>
<b>4 SESSION SUMMARIES</b> .....	<b>6</b>
4.1 PRESENTATIONS.....	6
4.2 GROUP SESSIONS.....	7
4.2.1 <i>Quality Assurance sessions</i> .....	7
4.2.2 <i>Summary of findings from the Quality Assurance sessions</i> .....	7
4.2.3 <i>Extracts from the Quality Assurance survey</i> .....	9
4.2.4 <i>Educational repositories in a Google world</i> .....	23
<b>5 PARTICIPANTS</b> .....	<b>29</b>

Please note that the [web based version of this document](#) will be updated when relevant.

## 1 Introduction

This workshop took place at Crowne Plaza, Brussels, Belgium, December 4<sup>th</sup>-5<sup>th</sup> 2007

The agenda for all expert workshops is settled on the basis of input from network members. An initial list of issues to give priority was established in the first strategic seminar. The issues with highest priority for the first workshop in the series concerning *Repository strategies* were:

- *Quality assurance strategies*  
(*editorial policies, technical quality assurance*)
- Connecting and cooperating with existing repositories
- Educational repositories in a Google world
- Identifying successful policy actions  
(government support, public-private partnerships)

Similarly, members have expressed the wish that all workshops have a focus on a high level of participation and group sessions, in order to involve all participants as much as possible and underpin the networking aspect of the project.

## 2 Conclusions

There is not one strategy or policy that fits all European countries with respect to educational repositories, but members learn from sharing examples of successes. However, in a number of countries networks connect existing repositories that collaborate on providing one central platform, where the teachers and pupils may go and look for learning resources. Also at European level, EUN provides the LRE service that will enable users to find validated content from other countries.

The owners of national educational repositories consider quality assurance of a very high priority. Of course quality assurance in general is important, but it is also the very difference between finding a resource from a search in Google and from a search in a repository of 'validated' resources. When a user looks for resources in an educational repository, it must be easy to find the best, the metadata must be accurate and descriptive, and the user should know that the content is of solid educational quality. Some countries rely on the information provided by the (approved) educational publishers, and some have a team of teacher experts reviewing the entries from publishers and/or educationalists.

Trends clearly emerged, but the members did not extract any set of recommendations at this early stage of the project. They will continue to discuss these issues at the next expert workshops. At the next workshop there will be more focus on providing an overview of current approaches and identifying the decisive factors in obtaining a successful repository – and which of these can actually be planned and/or subsequently implemented.

### 3 Agenda

Tuesday, December 4 <sup>th</sup> 2007		
09.00	Welcome	Leo Højsholt-Poulsen, UNI•C
09.30	Reporting from Expert workshop 5.1	Tommy Byskov Lund, UNI•C
10.15	Coffee break	
10.45	Presentation of new members: NCTE CTIE	Mike O'Byrne, NCTE, Ireland Jean-Luc Barras, CTIE, Switzerland
11.30	<i>Connecting and cooperating with existing repositories.</i> The EUN Learning Resource Exchange (LRE)	David Massart, EUN
	Edurep - Middle-man in the Dutch educational content chain	Bas Jonkers, Kennisnet
	Experiences from Calibrate project	Iztok Kavkler
13.00	Lunch	
14.00	Quality Assurance - group session 1 - survey results	Introduction by UNI•C EdReNe members
16.00	Coffee break	
16.15	Quality assurance - group session 2 - survey results	EdReNe members
18.00	First day finishes	
20.00	EdReNe dinner at restaurant In't Spinnepopke	

Wednesday, December 5 <sup>th</sup> 2007		
09.00	Administrative issues and questions	Leo Højsholt-Poulsen, UNI•C
09.30	Quality group session 2 - presentation Quality group session 3 - fill Q4R for your repository	EdReNe Members
10.15	Coffee break	
10.30	Quality group session 3 - continued (survey results)	EdReNe Members
11.30	<i>Identifying successful policy actions</i> <i>(government support, public-private partnerships)</i>	
	OER Commons projects	Lisa Petrides, OER Commons
	Norwegian governmental service oriented repository strategy	Trond Hanssen, utdanning.no
	Linking policy and business models	Paul Sire, sDAE
13.00	Lunch (in the hotel restaurant)	
15.00	Repositories in a Google world - group session (survey results)	Introduction by UNI-C EdReNe members
15.30	Repositories in a Google world - discussion	EdReNe members
15.45	Workshop evaluation - Input for next workshops	Tommy Byskov Lund, UNI•C
16.00	Workshop finishes	

## 4 Session summaries

The workshop dealt with the four prioritised themes in two different ways:

### 4.1 Presentations

#### *Presentations of new members*

Mike O’Byrne from the National Centre for Technology in Education (NCTE) in Ireland.

[Download presentation](#)

Jean-Luc Barras from Centre suisse des technologies de l’information dans l’enseignement (CTIE) in Switzerland.

[Download presentation](#)

#### *Theme presentations*

In a number of plenum sessions experts presented concrete examples of “Connecting and cooperation with existing repositories” and “Identifying successful policy actions”.

In The Netherlands, the authorities have launched Edurep as the Middleman in the Dutch educational content chain, linking and facilitating interoperability between users and a number of rather different suppliers of educational resources.

[Download presentation](#)

The European Schoolnet, EUN, has, in collaboration with its national partners, developed the Learning Resource Exchange (LRE) service that will enable schools to find educational content from many different countries and providers. The LRE is based on experiences from previous projects like Calibrate and MELT.

Relevant links:

[LRE](#)

[Download presentation of the LRE](#)

[Download Calibrate experiences](#)

Lisa Petrides, from OER Commons/ISKME was invited as an external expert. She spoke about Open Educational Resources for Teaching and Learning, a network that aggregates thousands of lesson plans, exercises, and simulations from over hundred partners. Quite a number of initiatives use and share these collections of free resources.

[Download presentation](#)

Expert members presented the governmental service oriented strategy from Norway, and the digital content repository “La Central Digital” from Spain, which aims to be a global B2B marketplace mainly for audio/audiovisual content and to promote new business models for the legal sale of cultural contents in digital formats.

Relevant links:

[Download presentation of Norway’s service oriented strategy](#)

[Download presentation of linking policies and business models](#)

## 4.2 Group sessions

In two group sessions all participants discussed “Quality assurance strategies”, which was considered the most important issues at all, and the “Educational repositories in a Google world”.

### 4.2.1 Quality Assurance sessions

The main focus of the group sessions during this workshop was on quality assurance strategies. In the three group sessions participants discussed:

- Real-life examples of educational resources – what should be included in educational repositories, and what should not. In this session participants made the important point of their group discussions available to all members by filling in a survey in the EdReNe Members Zone. The results of the survey was subsequently discussed in plenum, and made available to all members for further comments
- The two subsequent group sessions were in part based on the questionnaire developed in the Q4R project ([www.q4r.org](http://www.q4r.org)). This was used as a basis for initiating discussions among different repository stakeholders represented within the group of participants. In the second group session repository owners were asked to fill in a similar questionnaire this time reflecting the current practise of their repository. The complete survey is available to network members from the EdReNe Members Zone.

### 4.2.2 Summary of findings from the Quality Assurance sessions

The survey includes thirteen repositories from thirteen different countries, most run by or on behalf of national ministries of education. Their primary target is teachers and pupils of primary and secondary education, but some also aim at parents and the broader public. Their scope is the national environment, but nonetheless 71% include multilingual resources. Six of the 13 repositories are linked to other repositories in the national environment, and four have or will link to EUN’s portal (Calibrate/MELT/LRE), which aims at pan-European users.

The first educational repositories were launched more than ten years ago in 1993-1995, and the most recent in 2007. The overall goal of ministries have been to provide educational resources to the target group, and some governments drive to transform teaching and learning in schools by improving access to ICT and multimedia resources for all pupils. The focus is to create one central marketplace on the Internet, where users can go and search or browse for all available materials. About half of the repositories publish regular newsletters for its users and stakeholders, and 3/4 communicates events and news on the repository interface.

The number of titles registered in the repositories varies very much, from 500 to 100.000. 2/3 of repositories have records of all types of learning objects. However, nearly all concentrate on digital learning resources from text documents in pdf or html format, photos, video clips etc. to websites (links) and to more elaborate resources with support materials. As for the digital resources, the survey reveals no common trend of the size of the learning resources. The majority of repositories host both the descriptions (metadata) of the titles and the digital content of the title itself (data). A few serve purely as catalogues with only metadata and references/links to the actual resources stored at their original location.

In most countries the materials are being evaluated in various ways upon entry in the repositories. In fact, 79% accept only validated content. In many cases expert teachers are being paid to do this validation, and/or only content from approved publishers is considered eligible. In Austria all titles are checked – by a group of teachers hired by the repository owners - in quality, technical application and copyright issues as far as possible, but there is no standard evaluation procedure. Also in Ireland all the content provided has been evaluated by teachers, who are paid to provide the review and categories. In a few countries like e.g. Italy and Denmark the repository comprises any title registered by the producer, and it is up to the users, the teachers and pupils themselves, to choose a resource and evaluate its quality and appropriateness. However, nearly all have some kind of check of correctness of metadata.

More than 2/3 of the repositories apply intellectual property and editorial policies, and standards for interoperability. Half of them have formulated an accessibility policy. Some screen metadata and data for violation of intellectual property rights and apply e.g. Creative Commons for users' rights. An editorial policy is often adhered to through workflow and checks. Regarding the accessibility policy, at least one repository has added in the LOM schema a field allowing specifying whether the learning objects are accessible or not to disabled people taking in account the W3C Accessibility guidelines<sup>1</sup>.

Some variant/subset of the IEEE LOM metadata application profile, localised to national educational needs, has been applied by 79% of the repositories. But a few have 'invented' their own metadata profile. 71% of the repositories use some kind of metatagging tool for describing new titles. There appears to be no one common 'European' or 'international' tool applied, all have their own.

All repositories offer search by keyword or free text. In nearly all the users may search for resources by metadata and/or categories of metadata. In e.g. the Lithuanian and Danish repository the user may also browse for relevant materials through a hierarchical structure. 1/3 of the repositories also include a multilingual thesaurus, which 'translates' the national words and maps them onto a common application profile.

Quality assurance may be applied before and/or during the inclusion of a resource in the repository. About one half of the repositories, which do a quality check before inclusion, provide a checklist of quality criteria: a mix of pedagogical, ergonomical (interface presentation and navigation), cultural, accessibility and technical (e.g. interoperability) criteria.

Only 14% of the repositories request a membership of its users that look for materials, but the majority considers membership/registration in some form obligatory to contributors of content. Only one repository out of the thirteen currently has a built in Digital Rights Management system. 79% permit their contributors to apply a Creative Commons license.

A lot of work is being put into assuring that metadata is correct. There is not one common set or approach. 71% have experts verifying the metadata upon entry, and 50% provide a metadata reference guide for different types of content. 2/3 of those repositories that have a 'technical quality control', do an automatic link check.

---

<sup>1</sup> <http://www.w3.org/TR/WCAG10/>

Some repositories facilitate that users may add evaluations, comments or ratings in some form to the titles in their repositories, and some plan to provide these possibilities. However, as a matter of principles some repositories do not allow this type of feed-back. So far, none of the repositories have applied e.g. social bookmarking or tag clouds.

[Download extract of Quality Assurance survey, by repository \(Excel\)](#)

#### 4.2.3 Extracts from the Quality Assurance survey

The following paragraphs present excerpts from the answers given by individual member repositories. The full survey results from both group sessions are available from the EdReNe Members Zone.

Please note that *the surveys are primarily meant to initiate discussions and knowledge exchange between members of the network during workshops and should be interpreted with this in mind*. Survey results can be used as eye-openers and for setting new important discussion items on upcoming workshop agendas but should not be interpreted as more than this.

#### What type of Learning Objects does your repository have records of?

All kinds	64.3 %
Text documents (URLs, HTML, pdf, etc.)	42.9 %
Video clips	21.4 %
Photos	28.6 %
Graphics	14.3 %

Other types of content included / Comments:

- Streaming video  
Links to good websites and content  
Interactive online exercises
- All DLR held in the repository have support materials which demonstrate how the resource can be used to support the curriculum. A single object such as a photo or video clip would not be eligible however these may form part of a resource.
- Quaderns virtuals (virtual notebooks. See [http://clic.xtec.cat/qv\\_web/en/index.htm](http://clic.xtec.cat/qv_web/en/index.htm))
- - events  
- personal and institutional contact information
- The limitation is learning objects' aggregation level ("too big for reuse")
- We have learning resources and learning assets (small chunks)
- non-digital materials (like wall-maps, actual textbooks etc),  
access advise regarding WEB-based on-line materials,  
only for educational materials available for the Danish educational system
- The pdf and text could be used only as supplementary materials (like guidelines for use) devoted to teachers.  
The idea is to promote the use of interactive multimedia content (LOs) non single asset

- mp3
- We do not host content
- assessment 4%  
course 15%  
drill and practice 20%  
guide 6%  
lesson plan 18%  
presentation 30%

#### Does your repository include multi-lingual resources?

Yes	71.4 %
No	28.6 %

#### What is the total number of resources in your repository?

- 85392 (3.12.2007)
- 1,500 resources  
7,500 links to resources
- 1000s ?
- 6000
- Don't have a figure yet.
- cca 6000
- Links to 1290 LOs, incl. learning assets
- 48 500 resources and assets hosted in 7 repositories.
- as of 5th December 2007:  
publishers: 16.000  
teachers: 1.200  
assets (pictures): 3.500
- Around 500.  
  
The project is in a test phase of two years.
- 6000 approximately
- 4000+
- Approximately 3000 from Estonian learning portal + 300 from LeMill
- 5500

#### How many of these resources have been evaluated?

- They have all been checked in quality, technical application and copyright issues as far as possible, but there is no standard evaluation procedure.
- Teachers have evaluated all the content provided. These teachers are paid to provide the

review and categories.

- About 5%? undergo rigorous checks, the others are checked randomly for compliance to the repository guidelines.
- They plan to evaluate them
- We have several levels of evaluation.  
Around 4000 resources were checked at the basic level (correctness check of metadata).
- All of them
- Some may have been evaluated by the Ministries of Education, who have contributed to the repositories that are part of the federation. We do not have details on this.
- publishers: contractual agreement on terms, conditions and responsibilities,  
teacher produced materials: individual screening for copyright and metadata quality,
- none. It is up to the teacher to choose and evaluate the LOs, as it happens within the textbook market. In Italy there is no external control on the quality of the educational material. The teachers are free to choose what they want, the only constraint is that the material must be curriculum compliant.
- almost all
- All
- 100%
- All

#### Comments:

- Once a content provider is a 'member' of Curriculum online and are an approved provider they are permitted to self certify resources. These are checked randomly or come to our attention through complaints from other providers.  
To properly evaluate all the products it would take about 6 full time evaluators.
- We provided framework for quality evaluation of materials described in  
  
Lokar, Matija, Jakončič-Faganel, Janja: Quality of electronic materials for math teaching, Proceedings of the 3rd International Conference on the Teaching of Mathematics at the Undergraduate Level / Turkish Mathematical Society. - Istanbul : John Wiley & Sons, [2006]  
  
This framework is currently in implementation phase by subject advisors
- From Estonian learning portal [www.koolielu.ee](http://www.koolielu.ee) only the best resources are selected and metadata records are created. LOM from LeMill is transferred automatically to Estonian LOR. Transaction script is checking some quality criteria e.g. is the content published, does it have a cover image, ?

•

•

### What kind of policies does your repository apply?

Intellectual property policy	71.4 %
Cultural diversity policy	21.4 %
Editorial policy	71.4 %
Accessibility policy	57.1 %
Interoperability standards	71.4 %
No policies	0.0 %

#### Comments:

(if any of your guidelines/policies are publicly available, please provide URLs)

- Editorial policy is adhered to through work flow and checks - guideline is not publicly available. The Accessibility policy is at the reviewer (teacher) level where they provide details of the resource - if the content is created it must meet WAI-AA guideline.

Currently investigating policies on IP and Interoperability.

- <http://register.curriculumonline.gov.uk/page.php?id=42>  
Guidelines for eligibility
- <http://educasources.education.fr/AproposEduca.asp>  
<http://educasources.education.fr/AproposSites.asp>
- [http://www.eapc.cat/virtual/guies/manual\\_estil.pdf](http://www.eapc.cat/virtual/guies/manual_estil.pdf)  
(in Catalan)
- The judgment of the suitability of materials is made by editors (subject teachers).
- These policies are mainly implemented by Terms of Reference for LOs purchase / creation / evaluation. Template for LOs expert evaluation is available (in Lithuanian only)  
[http://www.emokykla.lt/lt.php/dokumentai/kiti\\_dokumentai/53](http://www.emokykla.lt/lt.php/dokumentai/kiti_dokumentai/53)
- Calibrate content is required to have a Creative Commons license. Partners are using LOM based Application Profile provided by EUN. As for the cultural diversity, contributing repositories have been asked to contribute resources that can be used cross border and linguistic barriers.
- IEEE LOM is the only implemented policy for interoperability
- regarding the accessibility policy it had been added in the LOM schema a field allowing to specify whether the Lo are accessible or not to disable people taking in account the W3C Accessibility guidelines

### Is your repository networked with other repositories?

Yes	71.4 %
No	28.6 %

#### Comments:

- We have a cooperation with Tiroler Bildungsservice using the repository for Primary Schools together:

<http://content.tibs.at/vs/index.php?menuNo=133>

- Currently no. But as a member of MELT we aim to achieve this in 2008.
- Yes in respect to the fact that external partners can use a proprietary web service to search the repository. There were plans to redevelop this to use open standards and provide a wide networkable interface.
- By the means of another service called Murene - <http://murene.cndp.fr/>

Murene is a federated search engine including different educational metadata databases, for the primary and secondary school level.

- We plan to set up a network of schools with the same aims and interests within the Spanish, South America and some European countries.
- Connected to LRE and Melt.  
So far, one direction only (our repository is accessible from the federation).
- Lithuanian LOM repository is federated member of EUN Learning Resource Exchange
- We are a federation of repositories.
- Yet, linking to providers included in metadata records
- With Spindeln, the Swedish brokerage system for the Federated search
- Connected to LRE federation supporting OAI-MHP
- It harvests minor collections.

#### Which metadata profile is implemented in your repository?

IEEE LOM	78.6 %
SCORM	0.0 %
UK LOM Core	0.0 %
Dublin Core	7.1 %
MARC21	0.0 %
<b>Not answered</b>	14.3 %

Other scheme / Comments:

- We have our own metadata scheme.  
The ministry of education in Austria has developed its own scheme:  
[http://www.bildung.at/static/bmbwk/de/elearning/metadatenmodellversion1\\_3\\_2.pdf](http://www.bildung.at/static/bmbwk/de/elearning/metadatenmodellversion1_3_2.pdf)  
This scheme is being adapted, but we don't have a final version yet...
- Working as part of MELT project to enrich all resources with IEEE LOM.
- It is an application profile of IEEE LOM.
- We use the French national application profile : LOMFR
- Our own metadata format (Trubar).  
  
It is semiautomatically converted to LRE LOM for federated search and OAI-PMH harvesting.
- It is planning to approve Lithuanian IEEE LOM Application Profile based on LRE AP v3.0

- The Application Profile is being used in Calibrate and in the MELT project. Several MoEs have adopted the AP also.
- Danish application profile is a subset of IEEE LOM
- The LOM application profile is also SCORM compliant and includes the DOI as the recommended identifier for the LOs in order to foster interoperability with other platforms and exploit the peculiar advantages of DOI in terms of persistency and online action ability
- Actually, based on IEEE LOM we developed our own metadata profile
- It's LRE LOM application profile.

### Can your repository import metadata from any XML schema?

Yes - implies mapping system between schemas is available

No - implies only handling of specific schema, please indicate which

Fill in any other relevant comments.

- No, we have our own old scheme.
- No.
- No - all metadata conforms to the application profile of IEEE LOM.
- Metadata is produced by a relational database and then converted to the LOM or LOMFR formats. XML schemas are only used to validate the conversion.
- Yes, it is part of our present development, but cannot give you details yet.
- No.  
We can import data in Trubar format.
- Only LOM-compliant XML import / export schemes are available
- Yes - implies mapping system between schemas is available.
- Manual mapping necessary (XSLT)
- Yes
- yes
- No
- NO  
We have mass upload functionality from tab separated text file
- No,

### Does your repository include a metatagging tool?

Yes	71.4 %
No	28.6 %

If yes, please indicate URL.  
Fill in any other comments.

- Resources have metadata added when they are uploaded. There is a tool used to create this data. But this is not creating standard LOM.
- [http://www.curriculumonline.gov.uk/SupplierCentre/Tagging\\_Tool.htm](http://www.curriculumonline.gov.uk/SupplierCentre/Tagging_Tool.htm)
- Educasources metatagging tool needs an authentication.  
CNDP has also worked in the production of a public metadata editor and converter called Educameta : <http://www.educameta.cndp.fr/>
- It will, but it's not ready yet (mid 2008).
- <http://sio.edus.si/katalogi/input1.htm>  
An online form for metadata creation (in three levels: resource registration, detailed description, complete description).
- It is planning to implement metadata tagging in future
- Calibrate users can upload resources through LeMill (lemill.net), certain formats are not accepted (.doc, .ppt). Users can add own keywords to resources that are saved in collections of favourites.
- Via URL and protected LOGIN,  
[https://materialeplatform.emu.dk/materialer/private\\_frontpage.do](https://materialeplatform.emu.dk/materialer/private_frontpage.do)
- For the Editors (teachers and librarians) we have tool but only available through login.

#### What type of search options does your repository offer?

Keyword and free text	100.0 %
Thesaurus	35.7 %
Metadata	85.7 %
Classifications	92.9 %
Questions	7.1 %
Federated	14.3 %

#### Comments:

- Scoilnet can be searched through a free text search function. There is also a classification search which uses the age, subject and material types.
- Partial metadata search - based upon Special Educational Needs, Evaluations or priced/free filters.
- Advanced search interface  
<http://educasources.education.fr/RechAvanc.asp?>
- <http://sio.edus.si/katalogi/search.htm>
- There is (additional) browsing possibility (by subjects)

#### How is information about content communicated to the user and stakeholders?

Newsletters	42.9 %
Events and news in the interface	78.6 %

Newsgroup	0.0 %
<b>Not answered</b>	21.4 %

## Comments:

- Fortnightly newsletter to teachers (primary and post-primary). Events are available in local education centres. The Interface highlights new resources and groups them for ease of use.
- The main communication actions are made by email. Some presentations are made during educational forums.
- Lists of additions in last (day, week, month)  
<http://sio.edus.si/bin/trubar/search.exe/sio?mode=all&max=20&template=seznam.tmt&new=1n>  
<http://sio.edus.si/bin/trubar/search.exe/sio?mode=all&max=20&template=seznam.tmt&new=7n>
- It is planned to provide additional Newsletters and RSS feed services through educational portal
- RSS about to come this year (2007)
- None. We plan a RSS feed in the next version.
- No communication at the moment.
- RSS

**Is any special information (metadata profiles, other projects, etc.) or training offered by the LOR?**

Yes	64.3 %
No	35.7 %

## Comments:

- There is a module carried in an online ICT course for teachers.
- Training is offered to new librarians in our network that want to participate in the selection and cataloguing of resources. There are 2 or 3 training sessions per year.
- Online help for using and metatagging  
<http://www.educa.fmf.uni-lj.si/trubar/>  
<http://sio.edus.si/trubar.htm>
- Metadata profiles only. All additional information (incl. training possibilities) are available through portal
- Pilot schools within the project have received training in each country and by coming together as a group in a summer school.
- on-line and telephone support for providers
- The overall project provided a set specific training course for teachers aimed at
  - illustrate the features of the platform
  - train on the use of digital content in the class
  - support the teachers during the experimentation phase
- We hope to create a user tutorial and a teachers' guide

- [utdanning.no/wiki](http://utdanning.no/wiki)

## QUALITY ASSURANCE PROVIDED BEFORE INCLUSION IN THE REPOSITORY

During LO development, which type of quality assurance strategies does your LOR propose to potential LO authors?

List of quality criteria	57.1 %
Evaluation forms	21.4 %
Instructional design method	14.3 %
Media principles	14.3 %
Specialized editors*	7.1 %
Peer review process	14.3 %
End-user review or validation	28.6 %
Production tools	14.3 %
<b>Not answered</b>	21.4 %

Comments:

(if publicly available, provide link to editors)

- In projects where content is produced there is always evaluation at the peer-peer level or as external evaluation. In the development of content there are guidelines.
- None
- List of quality criteria and evaluation model is published in: Dinevski, Jakončič-Faganel, Lokar: Model ocenjevanja kakovosti elektronskih učnih gradiv (A model for quality assessment of electronic learning material) Organizacija, ISSN 1318-5454. Vol. 39, 2006 ; no. 8. - P. 498-503.
- MS Power Point templates to create lesson plans / ideas are used. CALIBRATE LeMill learning toolbox is localised to create / reuse LOs, methodical guidelines will be available till the end of 2007
- None, as we are not creating any content, but federating existing content.
- 20: no advice on content production.
- Some of the authors are using eXe tool for SCORM compliant content creation and LeMill for creating content in collaboration.

Which of the following dimensions are covered/considered by your LO design and production quality criteria?

Pedagogical	64.3 %
Ergonomical (interface presentation and navigation)	57.1 %
Cultural	42.9 %
Accessibility	50.0 %
Technical (e.g. interoperability)	50.0 %
<b>Not answered</b>	28.6 %

## Comments:

- In projects where there is production of resources the quality criteria would always include pedagogical, ergonomical and accessibility.  
There are currently some cultural guidelines for content to be available in Irish (as Gaeilge).
- NO production quality criteria are used currently. We have developed a set of quality principles to guide suppliers which have not been integrated into the repository yet.  
[http://partners.becta.org.uk/index.php?section=sa&catcode=\\_sa\\_cs\\_cf\\_03](http://partners.becta.org.uk/index.php?section=sa&catcode=_sa_cs_cf_03)
- Technical evaluation criteria to be reviewed
- We encourage contributing repositories to provide resources that have the potential to be used in different countries, we call them "travel well" resources.
- like 20
- All the aspect are considered and defined by each content provider under their autonomous decision.
- LO design is not managed by LOR holders. It's based on authors (teachers) needs.

## QUALITY ASSURANCE PROVIDED DURING INCLUSION IN THE REPOSITORY

### Is membership obligatory to search your repository?

Yes	14.3 %
No	85.7 %

## Comments:

- Everybody can use the repository. The resources are also available.
- Although Calibrate is closed to about 80 schools at present, Calibrate content will be made available in 2008 publicly accessible Learning Resource Exchange for schools.
- The content providers must apply as certified supplier for the platform. In order to become supplier there is formal procedure to be followed.

### Is membership obligatory to contribute content to your repository?

Yes	57.1 %
No	42.9 %

## If yes, what are the criteria for becoming a member?:

- Currently you can upload photos to the site but you have to be a member.  
Only contracted teachers can upload content to site.
- Content providers must submit one product to undergo checks for eligibility. Their organisation also undergoes financial checks.
- To belong to the CNDP network composed of librarians and teachers distributed in all parts of

the country.

- It will be obligatory in the new version. Everybody will be able to become a member (but there will be different levels of membership).
- Social metadata tools are available only for approved members (single sign on authentication is made through portal)
- Currently you need to be a member of Calibrate. Content is also being contributed by Associate Partners as long as they can provide content with CC license.
- registration of identity.  
Accept of responsibilities for professional providers.  
Accept of conditions for non-professionals.
- Anyone may suggest content to the review process
- At the moment membership of LOR is limited. Only the administrator of the LOR can upload the new LOM information.

### How is content accepted?

Any content is accepted	21.4 %
Only validated content is accepted	78.6 %
Following submission to an internal review committee	21.4 %

Other criteria / Comments:

- Teachers are paid to find, evaluate and categorise content for inclusion on the site.
- Only approved content providers can upload content. This is checked periodically for eligibility.
- Content is considered as validated if it is produced by educational institutions or by the network members.
- Inappropriate materials are removed in periodical checks.
- Any content Ministries propose is accepted, as long as it has a CC license.
- Validation for non-professionals e.g. teachers,  
Contractual agreement for professionals assuming that they validate themselves.
- We have 8 editors (teachers and librarians) and one coordinator
- Content and metadata is created by teachers  
Content is previewed accepted by subject moderators  
Metadata is previewed by LOM expert  
LOR administrator uploads the content to LOR.

### Does the repository have a built in Digital Rights Management system?

Yes	7.1 %
No	92.9 %

Comments:

- The Federation is capable of supporting a variety of DRM approaches. DRM may be applied in the Learning Resource Exchange (LRE) in 2008. No final decision has yet been taken on this.
- There is DRM intended as licence management not as technical protection measure. The other protection of piracy is that the LOs are not downloadable.
- For this reason we only store LOM about LO that have some copy left.

### Does the repository permit to apply a Creative Commons license?

Yes	78.6 %
No	21.4 %

#### Comments:

- On ImageBank area you can select a creative Commons licence.
- As part of tagging
- It is encouraged.
- It is planned to implement DRM based on Creative Commons licences
- The majority of MoEs seem to be opting for a non-commercial variety of CC licenses, which is causing some problems when it comes to adaptation of resources by end-users and for LeMill.
- included as metadata
- We stimulate the use of the CC license, but only a very few have licenses at the moment
- Licensing system is based on CC. Most of the content has license attribution share alike non-commercial CC: BY-NC-SA

### In terms of assuring metadata correctness and pertinence, what type of assistance is available in your repository?

Metadata reference guide for different types of content	50.0 %
Automatic metadata	21.4 %
Experts verifying metadata	71.4 %
Metadata mapping to other profiles	7.1 %
<b>Not answered</b>	<b>14.3 %</b>

#### Comments:

- In the MELT project Metadata has been verified by experts. Otherwise no.
- The metadata of this repository is a real value, because it is always controlled.
- Metadata mapping to other profiles is performed for LRE.
- As it is a federation, it the contributing members who apply the metadata. They might have a variety of approaches on this. EUN provides support on how to apply the LRE application profile.
- verification only for non-professionals

- We as Association supported content providers in the creation of the metadata compliant with the LOM/SCORM schema and on the use of DOI
- The first set of metadata was collected in Excel spreadsheet

#### After using content, what type of 'evaluation' does your repository permit?

Recommendations, Suggestions and/or Annotations can be added to the record	14.3 %
Star rating (or similar, e.g. 5 stars = best; 0 = not recommended)	14.3 %
Built-in review/evaluation forms	21.4 %
Social bookmarking	0.0 %
Tag clouds	0.0 %
Peer trust mechanisms	0.0 %
Collaborative tagging	0.0 %
<b>Not answered</b>	<b>71.4 %</b>

#### Comments:

- We are not offering feedback to content by now.
- We would like to propose collaborative tagging functionalities and star rating in a next future.
- Star rating will be implemented in the new version.
- Users comments and star rating are under implementation
- The last four here will be available in the MELT repository in 2008, currently in beta.  
Our rating is on a scale of 1-5 on "usefulness" of the resource.
- none
- We are redesigning the "evaluation" from users
- We hope to include a Star rating system ++
- None of them at the moment.

#### What type of reusability data does your repository provide for included content?

Number of downloads	14.3 %
Numbers of views/visitors	50.0 %
Number of known reuses	0.0 %
Evaluations	35.7 %
<b>Not answered</b>	<b>35.7 %</b>

#### Comments:

- We track the number of visits to each resource.
- 
- Number of downloads and views is recorded but is not publicly available.

- Ratings with comments are made available.
- nothing for end-users, internally registration of downloads and visits.
- Statistics are available for the overall use of the service
- None of them at the moment.

### What is the most frequent type of reuse of content from your repository?

As is	42.9 %
By de- and re-composition (Lego model)	0.0 %
Adaption to fit a specific context	0.0 %
As an example	0.0 %
Don't know	57.1 %

Comments:

- The content is used in the format that it is provided on the site.
- Once content is obtained we don't know how it is used
- There is no relevant information collected at the moment
- We will have a final evaluation report on how teachers have been using Calibrate in February 2008. The LOR itself does not have this information.
- We don't have information about that

## ADDITIONAL QUESTIONS

### What type of "technical quality control" does your repository include?

Link check	64.3 %
Malware check of uploaded files (virus, spyware...)	7.1 %
File size optimization (e.g. image reduction in ppts etc.)	0.0 %
Plagiarism check of uploaded texts	0.0 %
<b>Not answered</b>	28.6 %

### Fill in any type of quality criteria we didn't include in this questionnaire:

- - pedagogical
- LO aggregation (granularity) level  
Pedagogical decontextualisation level  
LO internationalisation level  
LO architecture is layered in order to separate data, presentation and application logics  
Personalization

- In the future (MELT portal), we will use more social mechanisms to promote the learning material that teachers have bookmarked and collaboratively tagged. We will also promote the "travel well" concept, on which we will make some further evaluation work in the future.
- We need to sort out links that could be dangerous for kids (violence, pornography ++)

#### 4.2.4 Educational repositories in a Google world

The group session was introduced by a showcase of current Google technologies. This formed the basis of a more general discussion on how to integrate/create synergy with e.g. popular search engines and other popular web based services.

[Download the introduction to the Google session.](#)

As part of the group session participants were also asked to fill in a survey on current actual use/considerations concerning Google technology and their own repository.

The complete survey is available from the EdReNe Members Zone, and the following exemplifies some of the comments made by workshop participants during their discussions. Please note that *the surveys are primarily meant to initiate discussions and knowledge exchange between members of the network during workshops and should be interpreted with this in mind*. Survey results can be used as eye-openers and for setting new important discussion items on upcoming workshop agendas but should not be interpreted as more than this.

##### Have you considered using Google as the search engine for your repository?

Yes	25.0 %
No	66.7 %
Don't know	8.3 %

##### Comments:

- It is interesting to consider additional search engine functionalities for teachers
- not yet  
We want to rebuild our repository and then we do consider using Google as one possible search engine.
- We considered it, but we didn't implement it.
- We already have a search engine, developed by us.
- Actually, its good idea to let Google to index the content and metadata of repository.
- All content is according to Google standards. A large percentage of all entries to the repository come through Google
- We use adwords. Also done some other SEO tactics.

### Do you know the percentage of visitors to your repository that are referred from a Google search?

Yes	41.7 %
No	8.3 %
Don't know	50.0 %

#### Comments:

(for example on the Google search strings that most frequently refer to your repository)

- a majority of searches
- Google does not find the repository unless the repository name is used in the search.
- We have not the possibility to identify where visitors come from
- google.com  
google.se  
google.co.uk  
http://mu-in-f104.google.com/  
http://lm-in-f104.google.com/

We can only identify the search strings from the service itself.

- about 50%  
They type in  
the name of the repository  
"worksheet"  
"lesson plan"  
"learning resource"
- 67000 pages out of totally 487 271 came from Google in Nov 2007.
- This information is obtained through Google analytics.
- Approx 50-60% come from Google.  
For example:  
"open education resources" gives OER Commons as first link  
"open teaching resources" we come us as third link  
"open math resources" comes up as fourth

### Are individual browse categories / metadata records in your repository indexed by Google?

Yes	25.0 %
No	33.3 %
Don't know	41.7 %

#### Comments:

- We often get results from the link library in Google which implies that we are indexed in some way.
- Overhead of Google indexing all possible search queries of the repository
- I have someone who is tracking this--I'd need to find out and get back--we have a whole list of keywords that we use.

### Have you considered including (parts of) your repository content in Google Scholar / Google Book Search?

Yes	0.0 %
No	41.7 %
Irrelevant	33.3 %
Don't know	25.0 %

#### Comments:

- It depends on the individual content providers  
Content providers are not always sure of giving Google an access to the full contents.
- I suppose it could be interesting for page based content not for multimedia interactive LOs, due the actual features of Google Book Search.  
Maybe could be interesting to submit a pdf description of LOs but as I know I do not think this is a goal for Google Book Search service.  
I do not know exactly which are the rules to participate to Google Scholar so I do not have specific recommendations
- Not relevant when the target audience is pupils up to age of 15
- Not clear to me what information will be presented in Google Scholar search result. Searched terms in content or in metadata record.
- Working with ccLearn on these issues for OER specifically.

### Do you use Google AdWords to market your repository?

Yes	16.7 %
No	75.0 %
Don't know	0.0 %
<b>Not answered</b>	8.3 %

#### Comments:

- It may interest some stakeholders to use it as an additional marketing service
- We will try to.
- Maybe we will next year.
- I'm afraid our institution does not have money for that.
- Have long list of words, which we optimize over time. Very small budget for this--Around \$3,500 a year. Very productive.

### Name the top three things (or more) your repository does better than Google to serve your primary target audience:

- advertising excluded  
searches relative to curriculum  
searches relative to area of interest

- 1. Control over the search fields
- 2. Better segmentation of the information.
- 3. Accuracy.
  
- Star ratings
- Quality Checking
- Only educational content
- More information is given in the search result than in Google
  
- - specialized content
- - the content is certificated by specialists
- - educational metadata
- - search by subject category
- - curriculum mapping
  
- 1. All our content items are quality tested.
- 2. We tailor to the needs of the Swedish target audience.
- 3. You get fewer but better answers. The results are more accurate due to controlled vocabulary. And it saves time!
  
- filtered search results
- quality of the data
- content developed by teachers
  
- specific targeted promotion
- user support and training
- specific detailed search (discipline, age range, didactical use)
  
- 1. educational classification
- 2. selection and quality of LO
- 3. non commercial environment
  
- We sort away pages with unsuitable ads for kids
- We serve quality assessed pages for school
- We makes searches available for different ages
  
- Actually our repository is only database. Search engine is the functionality of learning portal interface.
  
- Usually Google search is always better than any searching function in portal. Maybe the catalogue of content is advantage of portal. Teacher can find content by browsing.
  
- 1. Browsing facility in educational categories
- 2. Relevant articles and featured content/recommendations
- 3. Relevant search results-all learning resources
  
- Curation is more accurate
- We have much more detailed information than Google would ever use/index
- Produce targeted queries via apps to third parties

**Name the top Google technologies / features you would like to implement in your repository:**

- most aspects of Google are available otherwise too in other products.  
The compilation is of interest, but then the actual repository should be redesigned or rather maintained with updates.
- Speed.  
Word approximation.  
Brand recognition.
- None

- - Google Analytics
- - Google Image Search
- We consider implementing search-within-search feature.  
IGoogle might be interesting because of the possibility to personalise information feeds.
- indexing the content
  - speed
  - simplicity
  - "brand identity"
  - search engine learning from previous searches
- image labelling
- Not in LOR but in learning portal that is connected with LOR. ... I don't know. Just too many of them there. Maybe Boodle Book Search for searching the text based content.
- We are 'Googlefying' all our content so it will be more easily found. Possibly Google maps but there are similar map providers available.
- maps (geolocation), customized search

**Do you think that Google and searching is soooo old-school? Comment on what other technologies might prove more important to educational repositories in the next 2-3 years:**

- I feel that web 2.0 is more state of art than something new.  
This means that blogging and social tagging will have a role although they also bring some problems along with them.  
Old-fashioned location of resources and access to data is of lasting interest.
- Profiling the user (through his or her search, or preferences, like/dislikes, etc) and then suggest the next couple of resources that he or she may use or need :-)
- Syndication  
  
Personalisation: content is delivered to people based on their profile.
- - Mapping between repositories using ontologies
- - Multilingual search engine
- - Curriculum and competencies mapping (cross-curricula criteria)
- - Guidelines / authoring tools for content producers to create well-structured content to be reused in different educational context
- Using Google is definitely not old-school. It is "basic computer-literacy" concerning search for information.  
Other technologies: the semantic web, RSS-feeds  
implementation of repository search by using webservices on external sites  
RSS feeds  
recommendations of a community of teachers for good resources
- blogs  
widgets  
community reviews
- there many new ideas (tagging) but searching is not so old-school.
- Semantic web is going to be the next thing I guess. Google have to do something to filter away really bad hits
- Google and searching is not old school.

Maybe in the future the semantic web technology will be more implemented. e.g. search result will contain results based on synonyms and relations between different search terms.

Also the visualization of search results should improve. e.g. <http://www.visualthesaurus.com/>. User can start searching with keywords and continue by browsing

- Delicious provides collaborative book marking facility a repository could use this technology to bookmark resources as part of an online community. The system could also link people together with similar profiles.

Repositories can make data that is buried in databases available unlike Google.

Repositories can recommend resources 'you might be interested in this.....'

- Google still has the best search engine. But they haven't really shown interest in "data" even though they eventually will. I believe they have done a lot to optimize their search, but that they have hit a ceiling. It is much more likely that semantic web tactics will prevail for search strategies in the next 2-3 years.

## 5 Participants

20 of 23 founding members were represented. In addition two associated members participated – giving a total of 37 participants.

Name	Organisation	Country
Maria Loi	AIE	Italy
Cristina Mussinelli	AIE	Italy
Giulia Marangoni	AIE	Italy
Will Ellis	Becta	U.K.
Andrew Kitchen	Becta	U.K.
Andrea Shirley	Becta	U.K.
Jens Viggo Moesmand	BFU	Denmark
Jean-Luc Barras	CTIE	Switzerland
Astrid Leeb	Education Highway	Austria
Jorge Barreto Xavier	EduLearn	Portugal
Ursula Esser	EENet	European network
Eileen Brennan Freeman	EENet	European network
Yasmin Dragschitz	ENIS Austria	Austria
Jim Ayre	EUN	European network
David Massart	EUN	European network
Riina Vuorikari	EUN	European network
Orland Cardona Perez	Generalitat de Catalunya	Spain
Eugenijus Kurilovas	ICT	Lithuania
Mr Mantas Masaitis	ICT	Lithuania
Svetlana Kubilinskiene.	ICT	Lithuania
Hakim Usoof	IML	Sweden
Bas Jonkers	Kennisnet	Netherlands
Nikos Zygouritsas	Menon	European network
Alma Taawo	MSU	Sweden
Christina Szekely	MSU	Sweden
Mike O'Byrne	NCTE	Ireland
Lisa Petrides	OER Commons (invited external expert)	United States
Rosa Maria Gómez de Regil	CNDP	France
Paul Sire	sDae	Spain
Martin Sillaots	TLF	Estonia
Tommy Byskov Lund	UNI-C	Denmark
Leo Højsholt-Poulsen	UNI-C	Denmark
Vladimir Batagelj	UNI-LJ-FMF	Slovenia
Iztok Kavkler	UNI-LJ-FMF	Slovenia
Matija Lokar	UNI-LJ-FMF	Slovenia
Trond Hanssen	utdanning.no	Norway
Are Rikardsen	utdanning.no	Norway