Project no. 027087
TENCompetence
Building the European Network for Lifelong Competence Development

Project acronym: Integrated Project TENCompetence

Thematic Priority: 2.4.10

**D5.3 LearnWeb2.0 v.0.3 results**
( aggregates internal deliverables ID5.15, ID5.16, ID5.17, ID5.19)

Due date of deliverable: 31-05-2009
Actual submission date: 10-07-2009

Start date of project: 01-12-2005
Duration: 4 years

ILABS

Version 1.0

<table>
<thead>
<tr>
<th>Dissemination Level</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PU</td>
<td>Public</td>
</tr>
<tr>
<td>PP</td>
<td>Restricted to other programme participants (including the Commission Services)</td>
</tr>
<tr>
<td>RE</td>
<td>Restricted to a group specified by the consortium (including the Commission Services)</td>
</tr>
<tr>
<td>CO</td>
<td>Confidential, only for members of the consortium (including the Commission Services)</td>
</tr>
</tbody>
</table>
# Project Deliverable Report

## D5.3 - LearnWeb2.0 v.0.3 results
(aggregates internal deliverables ID5.15, ID5.16, ID5.17, ID5.19)

<table>
<thead>
<tr>
<th>Work package</th>
<th>WP5 – Knowledge Resources Sharing and Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task</td>
<td>Task 5.1-5.4</td>
</tr>
<tr>
<td>Date of delivery</td>
<td>Contractual: 31-05-2009   Actual: 10-07-2009</td>
</tr>
<tr>
<td>Code name</td>
<td>D5.3</td>
</tr>
<tr>
<td>Version</td>
<td>1.0</td>
</tr>
<tr>
<td>Type of deliverable</td>
<td>Report</td>
</tr>
<tr>
<td>Security (distribution level)</td>
<td>Public</td>
</tr>
<tr>
<td>Contributors</td>
<td>Alessandro Mazzetti (ILABS), Michele Dicerto (ILABS), Giuseppe Portelli (ILABS), Alexander Grigorov (SU), Atanas Georgiev (SU), Sergej Zerr (UHANN), Ricardo Kawase (UHANN), Juri Luca De Coi (UHANN), Mar Perez (FBM-UPF), Angel Roldan (ALTRAN), Pradeep Mittal (INSEAD), Bas Krekels (LOGICA), Korneliya Yordanova (SU), Wolfgang Greller (OUNL).</td>
</tr>
<tr>
<td>Contact Person</td>
<td>Alessandro Mazzetti (ILABS), Michele Dicerto (ILABS).</td>
</tr>
<tr>
<td>WP/Task responsible</td>
<td>ILABS</td>
</tr>
<tr>
<td>EC Project Officer</td>
<td>Martin Májek</td>
</tr>
</tbody>
</table>

## Abstract (for dissemination)
This deliverable aggregates the following internal deliverables (as described in DIP-4 Version 1.3): ID5.19 - LearnWeb and KRServices for Pilots; ID5.19.2 - Localized LearnWeb; ID5.15 - New Core and Integration specifications v2; ID5.16 - New version of the Integrated LearnWeb tool; ID5.17 - New LearnWeb tool evaluation outcomes.

## Keywords List
WP5, deliverable, LearnWeb2.0, LearnWeb2.0 v.0.3, LearnWeb v.0.3, requirements, specifications, implementation, evaluation.
# Table of Contents

1 EXECUTIVE SUMMARY (ILABS) ................................................................. 3

2 INTRODUCTION (ILABS) ........................................................................... 4

3 ID5.19: LEARNWEB AND KRSERVICES FOR PILOTS (ILABS) .......... 5
   3.1 DESCRIPTION .................................................................................. 5
   3.2 COLLABORATIVE DEVELOPMENT .................................................. 6
   3.3 SOURCES ......................................................................................... 6
   3.4 EXECUTABLES ................................................................................ 6
   3.5 DOCUMENTATION .......................................................................... 7
   3.6 INSTALLATION KIT .......................................................................... 7
   3.7 BUGZILLA ......................................................................................... 7

4 ID5.19.2 - LOCALIZED LEARNWEB (FBM-UPF) ................................. 8
   4.1 DESCRIPTION .................................................................................. 8
   4.2 COLLABORATIVE DEVELOPMENT .................................................. 8
   4.3 SOURCES ......................................................................................... 8
   4.4 EXECUTABLES ................................................................................ 9
   4.5 DOCUMENTATION .......................................................................... 9
   4.6 INSTALLATION KIT .......................................................................... 9
   4.7 BUGZILLA ......................................................................................... 9

5 ID5.15 - NEW CORE AND INTEGRATION SPECIFICATIONS (ILABS)..... 10
   5.1 ABSTRACT AND ToC ....................................................................... 10
   5.2 RELATION WITH OTHERS ID5s ..................................................... 11
   5.3 COLLABORATIVE DEVELOPMENT ................................................... 11

6 ID5.16 - NEW VERSION OF THE INTEGRATED LEARNWEB TOOL (SU) .. 12
   6.1 DESCRIPTION .................................................................................. 12
   6.2 COLLABORATIVE DEVELOPMENT .................................................. 13
   6.3 SOURCES ......................................................................................... 13
   6.4 EXECUTABLES ................................................................................ 14
   6.5 DOCUMENTATION .......................................................................... 15
   6.6 INSTALLATION KIT .......................................................................... 15
   6.7 BUGZILLA ......................................................................................... 15

7 ID5.17 - NEW LEARNWEB TOOL EVALUATION OUTCOMES (FBM-UPF) . 16
   7.1 ABSTRACT AND ToC ....................................................................... 16
   7.2 RELATION WITH OTHERS ID5s ..................................................... 17
   7.3 COLLABORATIVE DEVELOPMENT ................................................... 18

8 CONCLUSION (ILABS) .............................................................................. 19

9 APPENDIX (ILABS) .................................................................................. 20
   9.1 USER GUIDE OF LEARNWEB FOR PILOTS, BELONGING TO ID5.19. .... 20
      9.1.1 Introduction ............................................................................... 20
      9.1.2 Authentication .......................................................................... 20
      9.1.3 My Home Page ......................................................................... 24
      9.1.4 Search Page ............................................................................. 29
      9.1.5 View Page ................................................................................ 31
      9.1.6 Metadata Editor ....................................................................... 32
D5.3: LearnWeb2.0 v.0.3 results

9.1.7 Add/Upload Resource ................................................................. 34
9.2 Release Notes of LearnWeb v.0.3, belonging to ID5.16 ...................... 39
  9.2.1 Release Notes ........................................................................ 39
  9.2.2 Registration (SU) ................................................................ 39
  9.2.3 Single Sign On (UHANN) ...................................................... 39
9.3 Evaluation Methodology, belonging to ID5.17 .................................... 49
1 Executive Summary (ILABS)

This deliverable describes the work of WP5 during the third year of the project. As requested by the plan, this phase of the project is not addressed to new research issues, but it is specifically focussed to usability of tools and availability for Pilots and Business Demonstrators.

Particular attention has been given to international usability, thus the translation in the main European languages has been covered in this phase of the project.

The work has been organized following the software engineering methodology: requirements extraction, functionalities specification, architecture design, software implementation, user documentation, tool evaluation.

The Internal Deliverables described in this document respect the above methodology.
2 Introduction (ILABS)

This deliverable aggregates the following internal deliverables (as described in DIP-4 Version 1.3 page 33/60, file name: TENCompetence_DIP4_commissie_v1.3.pdf):

- ID5.19 - LearnWeb and KRServices for Pilots
- ID5.19.2 - Localized LearnWeb
- ID5.15 - New Core and Integration specifications v2
- ID5.16 - New version of the Integrated LearnWeb tool
- ID5.17 - New LearnWeb tool evaluation outcomes.

This document is organized as an introductory text that refers to the IDs as separate documents with the following format:

- The IDs of type “report” are referenced as pdf files stored in DSpace,
- The IDs of type “prototype” are here described and contain references to:
  - DSpace for the sources
  - URL for the executables.

This document is organized by chronological order of the internal deliverables.
3 ID5.19: LearnWeb and KRServices for Pilots (ILABS)

This internal deliverable has been submitted and accepted to DSpace on 2-Feb-2009; it is available on:
http://dspace.ou.nl/handle/1820/1776

3.1 Description

This deliverable consists in the development and release of software with a focus on user-friendliness, for use in the pilots. The requirements have been defined in ID5.13 (http://dspace.ou.nl/handle/1820/1607) and are here listed for your convenience.

<table>
<thead>
<tr>
<th>Short name</th>
<th>Description</th>
<th>References in ID5.13</th>
<th>Priority</th>
<th>Developer</th>
</tr>
</thead>
<tbody>
<tr>
<td>User registration</td>
<td>Users can register by themselves</td>
<td>3.1 and 5.1</td>
<td>1</td>
<td>ALTRAN</td>
</tr>
<tr>
<td>Concurrent usage</td>
<td>Up to 100 concurrent users on an empty fedora</td>
<td>3.1 and 5.1</td>
<td>1</td>
<td>SU</td>
</tr>
<tr>
<td>Improved search</td>
<td>More than one keyword, search among metadata,...</td>
<td>3.1 and 4.1</td>
<td>1</td>
<td>SU</td>
</tr>
<tr>
<td>Improved interface</td>
<td>explanation of metadata, explain the “(+), add tag field and comment field in publish page (button should be “OK” and not “publish”), default type of resources</td>
<td>9.1</td>
<td>1</td>
<td>SU</td>
</tr>
<tr>
<td>Delete a resource</td>
<td>Allowing resource deletion</td>
<td>3.1 and 5.1</td>
<td>1</td>
<td>SU + ILABS</td>
</tr>
<tr>
<td>Defining categories</td>
<td>Categories as already proposed by Alexander G.</td>
<td>1</td>
<td></td>
<td>SU</td>
</tr>
<tr>
<td>Resource Confidentiality</td>
<td>Allowing resource Public, private or learnweb users</td>
<td>3.1 and 4.1</td>
<td>1</td>
<td>UHANN</td>
</tr>
<tr>
<td>Improved profile page</td>
<td>Avoid unintentional credential deletion</td>
<td>3.1</td>
<td>1</td>
<td>ILABS</td>
</tr>
<tr>
<td>Installation Manual</td>
<td>Upgrade user guide for Pilots</td>
<td>4.1</td>
<td>1</td>
<td>FBM-UPF</td>
</tr>
<tr>
<td>LearnWeb2.0 for different browsers</td>
<td>Microsoft Internet Explorer, Safari?</td>
<td>5.1</td>
<td>1</td>
<td>UHANN</td>
</tr>
<tr>
<td>Satisfactory home page</td>
<td>Not empty! homePage=searchPage, Add list of last updated resources</td>
<td>3.1</td>
<td>1</td>
<td>ILABS + UHANN</td>
</tr>
<tr>
<td>User registration</td>
<td>Users can register by themselves</td>
<td>3.1 and 5.1</td>
<td>1</td>
<td>ALTRAN</td>
</tr>
</tbody>
</table>
3.2 Collaborative development

The development of ID5.19 has been carried out in a collaborative way, supported by several WP5-Forums and Skype Chats, among which the most significant are:

- Forum for WP5 » LearnWeb for Pilots due by december 2008:
  In this forum all the WP5 partners discussed about the functionalities with particular focus on the registration mechanism.
- Forum for WP5 » WP5 Skype Chats:
  This forum has been used for coordinating the Skype meetings, generally once a month.
  http://www.partners.tencompetence.org/mod/forum/discuss.php?d=2141#7701
- Forum for WP5 » Tools for cycle 3 pilots and demonstrators:
  In this forum we talked about several technical details and about user documentation.
- Forum for WP5 » LearnWeb 2.0 QuickStart User manual:
  This forum was focussed to the production of a handy documentation.

3.3 Sources

LearnWeb2.0 tool source
All sources are stored in a specific repository, under SourceForge framework. This facilitates the collaborative development.
Each software module is under a folder accessible through this link:

http://tencompetence.cvs.sourceforge.net/viewvc/tencompetence/wp5/org.tencompetence.krsm.<moduleName>

A frozen version of the above source is also available in DSpace at the following url:
http://hdl.handle.net/1820/1776

3.4 Executables

LearnWeb2.0 web server
Executables are published on the server at University of Sofia, and accessible through the link:

http://learnweb.it.fmi.uni-sofia.bg/

1 Only accessible to consortium partners and associate partners
3.5 Documentation

LearnWeb2.0 User Guide
The User Guide is included in the frozen version of the sources, mentioned in 2.3. It has been also published on the Moodle repository and accessible through this link:

http://www.partners.tencompetence.org/file.php/16/moddata/forum/31/8105/LearnWeb2.0_User_Guide_V0.7_SZ.doc

For your convenience, a copy of this User Guide is also replicated here in Appendix 8.1.

LearnWeb2.0 Technical Documentation
The technical documentation describes the Fedora data model and the light API for accessing and managing the KRSM. This document is published on Moodle at the following link:

http://www.partners.tencompetence.org/file.php/16/moddata/forum/31/8102/LearnWeb2.0_Repository_and_Web_Services_v1.1.doc

Since this is a long technical document, it is not replicated in the Appendix.

3.6 Installation kit
No installation kit has been set up for this deliverable.

3.7 Bugzilla
The Bugzilla report has been created with the name: "LearnWeb 2.0". This is the link to Bugzilla: http://wush.net/bugzilla/rulem/
4 ID5.19.2 - Localized LearnWeb (FBM-UPF)

This internal deliverable has been submitted and accepted to DSpace on 27-Mar-2009; it is available on:
http://dspace.ou.nl/handle/1820/1889

4.1 Description

This delivery includes: software sources and software executables. It consists on an extension of ID5.19 (LearnWeb and KRServices for Pilots.) with the added feature of localization. Currently available languages are: English, Spanish and Bulgarian. This software is the Localized LearnWeb tool for Pilots starting in March 2009. It includes KRService as a basis. The license is BSD owned by Tencompetence Foundation.

4.2 Collaborative development

The development of ID5.19.2 is the result of the interaction within the different members of the WP5 that has been mainly supported by WP5-Forums and Skype Chats. The most significant are those related with the ID5.19 deliverable (see sec. 2).

We have also reported the bugs in http://wush.net/bugzilla/rulem/. This has served also as a communication tool within developers and testers.

4.3 Sources

LearnWeb2.0 tool source
http://tencompetence.cvs.sourceforge.net/tencompetence/wp5/learnWeb/

The folder organization is as follows:
- Folder settings: contains the preferences for the eclipse configuration.
- Folder app: contains all the folders needed to run the application.
- Folder cake: contains the folders with the libraries, the tests, for the application.
- Folder vendors: contains the files concerning the style and the visualization of the tool.
- Other files for running the application.

A frozen version of the above source is also available in DSpace at the following url:
http://hdl.handle.net/1820/1889
4.4 Executables

LearnWeb2.0 web server
Executables are published on the server at University of Sofia, and accessible through the link:

http://learnweb.it.fmi.uni-sofia.bg/

4.5 Documentation

LearnWeb2.0 User Guide
The User Guide has been adapted to the multilingual version and has been published on the Moodle repository at these links:

English:

Spanish:
http://www.partners.tencompetence.org/file.php/16/quickstart_learnWeb2-es.doc

Bulgarian:
http://www.partners.tencompetence.org/file.php/16/quickstart_learnWeb2-bg.doc

4.6 Installation kit
No installation kit has been set up for this deliverable.

4.7 Bugzilla
The Bugzilla report has been created with the name: "LearnWeb 2.0". This is the link to Bugzilla: http://wush.net/bugzilla/rulem/
5 ID5.15 - New Core and Integration specifications (ILABS)

This internal deliverable is a document that has been submitted to DSpace on 10-Apr-2009 and then accepted and archived. It is available at this link:

http://hdl.handle.net/1820/1905

5.1 Abstract and ToC

This document describes the new functionalities for LearnWeb/KRService, which will be implemented in the new version called V0.3 and which will be available in late spring 2009.

The main topics cover: resource functionalities, integration with other TENCompetence tools and social functionalities, as shown in the Table of Content here below reproduced.

| 1 | INTRODUCTION (GIUNTI) .................................................................5 |
| 2 | ARCHITECTURE ..............................................................................5 |
| 2.1 | AUTHENTICATION (SU) .................................................................5 |
| 2.2 | REGISTRATION (SU) ......................................................................7 |
| 2.3 | SINGLE SIGN ON (UHANN) ..........................................................8 |
| 3 | USER INTERFACE ...........................................................................8 |
| 3.1 | HOME PAGE AND PAGES FLOW (UPF + GIUNTI) ...............................8 |
| 3.2 | TOOLBARS (UHANN + GIUNTI) .....................................................11 |
| 3.3 | BROWSERS (UHANN) ....................................................................13 |
| 3.4 | LIFERAY ISSUES (GIUNTI) ............................................................14 |
| 4 | RESOURCE FUNCTIONALITIES .......................................................14 |
| 4.1 | TAG CLOUDS (ALTAN) .................................................................14 |
| 4.2 | DOWNLOADING (SU) .....................................................................16 |
| 4.3 | SUPPORTING UID (SU) .................................................................16 |
| 4.4 | CATEGORY MANAGEMENT (GIUNTI) .............................................17 |
| 4.5 | RESOURCE GROUPS (UHANN) ......................................................18 |
| 4.6 | BOOKMARKING (UHANN) ..............................................................18 |
| 4.7 | SHARING (UPF + GIUNTI) ............................................................19 |
| 5 | INTEGRATION FUNCTIONALITIES ..................................................21 |
| 5.1 | INTEGRATION WITH RESOURCE (GIUNTI) ....................................21 |
| 5.2 | INTEGRATION WITH PDP (SU) ......................................................21 |
| 5.3 | INTEGRATION WITH PCM (SU) ......................................................22 |
| 5.4 | INTEGRATION WITH TENTURE (GIUNTI + TENSE) .........................31 |
| 6 | SOCIAL FUNCTIONALITIES ...........................................................32 |
| 6.1 | COMMENT RATING (GIUNTI) .......................................................32 |
| 6.2 | USER SEARCH (ALTAN) ............................................................32 |
| 6.3 | MANAGING ABUSES (GIUNTI) ....................................................33 |
| 6.4 | STIMULATING USERS (GIUNTI) ...............................................34 |
| 7 | CONCLUSIONS (GIUNTI) .............................................................36 |
| 8 | REFERENCES .................................................................................37 |
| 9 | APPENDIX A ................................................................................37 |
| 9.1 | PROTOTYPE (UHANN) ..................................................................37 |
5.2 Relation with others IDs
ID5.15 refers to the:

- requirements identified in ID5.13 (new requirements), delivered on 28-11-2008, http://hdl.handle.net/1820/1607
- implementation carried out in ID5.16 (LearnWeb2.0 v.0.3), delivered on 27-05-2009, http://hdl.handle.net/1820/1943

5.3 Collaborative development
The development of ID5.15 has been carried out in a collaborative way, supported by several WP5-Forums and Skype Chats, among which the most significant are:2

- Forum for WP5 » ID5.15 (new specifications):
  This forum has been used for coordinating the diverse contributions from each partner:
- Forum for WP5 » WP5 Skype Chats:
  http://www.partners.tencompetence.org/mod/forum/discuss.php?d=2141#8507

---

2 Only accessible to consortium partners and associate partners
6 ID5.16 - New version of the Integrated LearnWeb tool (SU)

This internal deliverable has been submitted and accepted to DSpace on 27-May-2009; it is available on:
http://dspace.ou.nl/handle/1820/1943

6.1 Description

This deliverable consists in the development and release of software of the new version of LearnWeb2.0, here on called for convenience:
- LearnWeb v.0.3
- KRService v.0.3.

This deliverable refers to the new requirements defined in ID5.15 described here in chapter 4 and available on DSpace at (http://hdl.handle.net/1820/1905).

For your convenience, find here below the requirement table of this deliverable.

<table>
<thead>
<tr>
<th>Short name</th>
<th>Description</th>
<th>References in ID5.15</th>
<th>Developer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authentication</td>
<td>Implementation of CAS authentication</td>
<td>2.1</td>
<td>SU</td>
</tr>
<tr>
<td>Registration</td>
<td>User registration form</td>
<td>2.2</td>
<td>SU</td>
</tr>
<tr>
<td>Single Sign On</td>
<td>Improved Single Sign On for Web 2.0 tools</td>
<td>2.3</td>
<td>UHANN</td>
</tr>
<tr>
<td>Home page and pages flow</td>
<td>Improved Home page and pages flow</td>
<td>3.1</td>
<td>ILABS+SU+ALTRAN</td>
</tr>
<tr>
<td>Toolbars</td>
<td>Browser toolbar that enables the users to interact with LearnWeb2.0 in her browser at anytime</td>
<td>3.2</td>
<td>UHANN</td>
</tr>
<tr>
<td>Tag Clouds</td>
<td>Tag clouds in the Home page and My Home page</td>
<td>4.1</td>
<td>ALTRAN+SU</td>
</tr>
<tr>
<td>Downloading</td>
<td>Explicit URL for resources, embed code for YouTube videos, preview of Flickr images in different sizes</td>
<td>4.2</td>
<td>SU</td>
</tr>
<tr>
<td>Supporting UoL</td>
<td>Publishing UoL to CopperCore via LinkTool</td>
<td>4.3</td>
<td>SU</td>
</tr>
<tr>
<td>Category management</td>
<td>Admin pages for category management and resource reassignment</td>
<td>4.4</td>
<td>ILABS+SU</td>
</tr>
<tr>
<td>Resource groups</td>
<td>Group integration</td>
<td>4.5</td>
<td>UHANN</td>
</tr>
<tr>
<td>Short name</td>
<td>Description</td>
<td>References in ID5.15</td>
<td>Developer</td>
</tr>
<tr>
<td>------------</td>
<td>------------------------------------------------------------------------------</td>
<td>----------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Bookmarking</td>
<td>Bookmarking</td>
<td>4.6</td>
<td>UHANN</td>
</tr>
<tr>
<td>Sharing</td>
<td>Added form to send emails to friends</td>
<td>4.7</td>
<td>ALTRAN+SU</td>
</tr>
<tr>
<td>Integration with PDP</td>
<td>Integration at the service layer</td>
<td>5.2</td>
<td>SU</td>
</tr>
<tr>
<td>Integration with PCM</td>
<td>Integration at the service layer</td>
<td>5.3</td>
<td>SU</td>
</tr>
<tr>
<td>Integration with TenTube</td>
<td>Added link to TenTube, implemented search in TenTube and preview of TenTube videos</td>
<td>5.4</td>
<td>ILABS + SU</td>
</tr>
<tr>
<td>Comment rating</td>
<td>Added user rating buttons to comments in resource pages</td>
<td>6.1</td>
<td>ILABS + SU</td>
</tr>
<tr>
<td>Managing abuses</td>
<td>Added a report abuse form</td>
<td>6.3</td>
<td>ILABS + SU</td>
</tr>
<tr>
<td>Stimulating users</td>
<td>Added an icon representing the class of each user. Added counters for the user activities</td>
<td>6.4</td>
<td>ILABS + SU</td>
</tr>
</tbody>
</table>

### 6.2 Collaborative development
The development of ID5.16 has been carried out in a collaborative way, supported by several WP5-Forums and Skype Chats, among which the most significant are:\(^3\)

- Forum for WP5 “ID5.16 - LearnWeb-v03”:
  In this forum we talked about several technical details and we collected the various contributions from the partners. This forum is available at: http://www.partners.tencompetence.org/mod/forum/discuss.php?d=2882
- Forum for WP5 “New and updated KR services”:
  This is a specific forum for discussing the new KR services and their implications on the software development.

### 6.3 Sources
The sources are divided in two categories:
- LearnWeb: this is an interactive system written in PHP
- KRService: this is the underlying layer for accessing Fedora repository, written in Java.

\(^3\) Only accessible to consortium partners and associate partners
LearnWeb2.0 tool source
LearnWeb sources are stored in a specific repository, under SourceForge framework. This facilitates the collaborative development. Each software module is under a folder accessible through this link:

http://tencompetence.cvs.sourceforge.net/tencompetence/wp5/learnWeb/

LearnWeb2.0 Web Services
This software is in Java language and is stored in the repository at this link:


LearnWeb (CASified version)
This is a specific version of the software using the CAS authentication mechanism. It has been kept separate from the other software because it has been deployed later. The sources are available at this link:


A frozen version of the above sources is also available in DSpace at the following url:
http://dspace.ou.nl/handle/1820/1943

6.4 Executables

LearnWeb2.0 web server
This is the entry point for the end user.
http://phpcake.it.fmi.uni-sofia.bg/

LearnWeb2.0 Web Services
This is the url used by the LearnWeb system for accessing the Fedora services.
http://gaco.fmi.uni-sofia.bg:8080/FedoraKRSM/fedora/

Fedora server
This is the Fedora system itself.
http://fedora.it.fmi.uni-sofia.bg:8080/fedora/

LearnWeb web server (CASified version)
This is the LearnWeb version using the CAS authentication system.
https://cas-learnweb.it.fmi.uni-sofia.bg/

LearnWeb2.0 Web Services (CASified version)
This is the KRService version using the CAS authentication system.
https://pcm.it.fmi.uni-sofia.bg:8443/FedoraKRSM/fedora
6.5 Documentation

LearnWeb2.0 v.0.3 Release Notes

The Release Notes of this version is included into the document ID5.16, submitted and accepted to DSpace together with the executable files on 27 May 2009. The deliverable is accessible through this link (already mentioned above):
http://dspace.ou.nl/handle/1820/1943

For your convenience, a copy of the Release Notes is also replicated here in Appendix 8.2.

LearnWeb2.0 Technical Documentation

The technical documentation of this system includes both the standard services description and the new services description. Each document describes the Fedora data model and the light API for accessing and managing the KRSM. This document collection is published on Moodle at the following link:

http://www.partners.tencompetence.org/file.php/16/moddata/forum/31/8800/WebServicesDocumentation.zip

Since this is a long technical document, it is not replicated in the Appendix.

6.6 Installation kit

No installation kit has been set up for this deliverable.

6.7 Bugzilla

The Bugzilla report has been created with the name: "LearnWeb 2.0". This is the link to Bugzilla: http://wush.net/bugzilla/rulem/
7 ID5.17 - New LearnWeb tool evaluation outcomes (FBM-UPF)

This internal deliverable is a document that has been submitted to DSpace on 11-Jun-2009 and then accepted and archived. It is available at this link: http://hdl.handle.net/1820/1958

7.1 Abstract and ToC

This document describes the main outcomes from the testing process of the LearnWeb_0.3. The testing consists in a complete analysis of all the system’s functionalities by performing a Unit and Integration tests. The Unit testing searches for defects in, and verifies the functioning of software that is separately stable. The Integration testing consists in verifying if the units work evaluated in the Unit testing are correctly integrated and related among them: interfaces between units, complete processing chain and relation controls within the system including several modules and/or in combination with database. The deliverable also includes the main conclusions from the loadability tests performed. A list of recommendations for the next release is provided as a conclusion.
3 Table of Contents
1 VERSION HISTORY .............................................................................................................. 2
2 SUMMARY OF CHANGES .................................................................................................. 2
3 TABLE OF CONTENTS ....................................................................................................... 3
4 INTRODUCTION (GIUNT1) ............................................................................................... 4
5 EVALUATION METHODOLOGY (UPF) ........................................................................... 4
  5.1 FUNCTIONALITY TESTS ............................................................................................ 5
  5.2 QUALITY TESTS ....................................................................................................... 10
6 SUMMARY OF THE LOADABILITY TESTS (UPF) ............................................................ 11
7 SUMMARY OF THE USABILITY ASPECTS EVALUATED (UPF) ................................. 11
  7.1 HOME PAGE AND PAGE FLOW ............................................................................... 12
8 SUMMARY OF THE FUNCTIONALITIES EVALUATED (UPF) ......................................... 12
  8.1 AUTHENTICATION .................................................................................................... 12
  8.2 REGISTRATION ....................................................................................................... 13
  8.3 SINGLE SIGN ON ................................................................................................... 13
  8.4 HOME PAGE AND PAGES FLOW ........................................................................... 13
  8.5 TOOLBARS ............................................................................................................. 13
  8.6 TAG CLOUDS ......................................................................................................... 13
  8.7 DOWNLOADING ..................................................................................................... 13
  8.8 SUPPORTING UoL ................................................................................................. 14
  8.9 CATEGORY MANAGEMENT ..................................................................................... 14
  8.10 RESOURCE GROUPS ............................................................................................. 14
  8.11 BOOKMARK ......................................................................................................... 14
  8.12 SHARING ............................................................................................................... 14
  8.13 INTEGRATION WITH PDP ..................................................................................... 15
  8.14 INTEGRATION WITH PC ....................................................................................... 15
  8.15 INTEGRATION WITH TEN Tube ........................................................................... 15
  8.16 COMMENT RATING ............................................................................................... 15
  8.17 MANAGING ABUSES ........................................................................................... 15
  8.18 STIMULATING USERS ........................................................................................... 15
9 SUMMARY OF QUALITY OF RELEASE V.0.3 AND RECOMMENDATIONS FOR V.0.4 (UPF) ................................................................................................................. 16
10 CONCLUSIONS (UPF) .................................................................................................. 16
11 REFERENCES (UPF) ...................................................................................................... 16
ANNEX (TF-15) ................................................................................................................. 18

For your convenience, a copy of the Evaluation Methodology is also replicated here in Appendix 8.3.

7.2 Relation with others IDs
This deliverable is related with the following deliverables:

- ID5.13 (new requirements), delivered on 28-11-2008, http://hdl.handle.net/1820/1607
- Outcome of Sofia and Düsseldorf meetings, document of 15-12-2008
  http://docs.google.com/View?docid=ddhtqnsh_663c8h7vtfs
- DIP-4 objectives and tasks, document of 19-12-2008
  http://docs.google.com/Doc?id=ddsnp3t6_28hcxmxphf
- ID5.19.2 (Localized LearnWeb) delivered on 27-03-2009
  http://dspace.ou.nl/handle/1820/1889
- ID5.15 (New Core specifications v2) delivered on 10-04-2009
  http://dspace.ou.nl/handle/1820/1905
- ID5.16 (New version of LearnWeb tool v.0.3) delivered on 27-05-2009
  http://hdl.handle.net/1820/1943

7.3 Collaborative development
The development of ID5.17 has been carried out in a collaborative way, supported by several WP5-Forums and Skype Chats, among which the most significant are:4

- Forum for WP5 » ID5.16 (plans and requirements):
- Forum for WP5 » WP5 Skype Chats:
  http://www.partners.tencompetence.org/mod/forum/discuss.php?d=2141#8507

4 Only accessible to consortium partners and associate partners
8 Conclusion (ILABS)

This phase of the project leaded to a stable and usable product, fairly integrated with other tools in the TENCompetence framework.

The development methodology has been classic: requirement extraction, specification, implementation and evaluation.

The focus has been addressed in consolidating the experimented functionalities and the attention has been targeted to completeness and usability. The main changes with respect to previous release are:

- User registration
- Localization and translation in Spanish and Bulgarian
- Better resource management
- Complete user manuals in 3 languages
- User friendliness through Toolbars, Tag Clouds, Help messages
- Integration with other TENCompetence tools
- User stimulation through excellence classes.

The evaluation tests pointed out several possible improvements, which will be taken into consideration for next (and last) version of the product: LearnWeb v.0.4.

The focus for next release will be addressed to robustness and integration.
9 Appendix (ILABS)

9.1 User guide of LearnWeb for Pilots, belonging to ID5.19

9.1.1 Introduction
This document represents the LearnWeb2.0 User Guide. It contains information about:
- Authentication
- My Home Page;
- Search Page;
- View Page;
- Metadata Editor;
- Add/Upload Page.

9.1.2 Authentication
9.1.2.1 Authentication by LearnWeb2.0
In order to start the learning activity, the user login name and password have to be supplied to the login form at the right top corner and submits using the “login” button.

![Login Form](image)

Figure 1: Login form.

User will have to wait till login process is completed. During this time a wait screen is shown to the user.
9.1.2.2 User registration in LearnWeb2.0

The user can register in LearnWeb2.0 by clicking on the Register link at the right top corner of the screen.

The registration form (Figure 3) is shown where the user must fill in user login name, password, nick name and e-mail address. After successful registration the user is redirected to the Home page.
9.1.2.3 Authentication and authorization by Web2.0 tools
Since browser based authentication cannot be done platform and browser independently, the native API authentication, provided by each Web2.0 tool is used in current release. The native authentication works as follows:

- User accesses a Learnweb2.0 function that requires authorization by a Web2.0 tool (i.e. resource upload).
• In case the user is not yet authorized the authentication page of the Web2.0 tool is shown. The user is asked to access her account, or create a new one, in case not yet happened.

![Authentification Page](image)

**Figure 5:** Authorization at the Web2.0 tool.

• The user is notified that LearnWeb2.0 has to be authorized to access her account for executing the desired action. The user has to allow access on her profile in order for the desired action to be executed.

![Authorization Page](image)

**Figure 6:** Authorize LearnWeb2.0 to access the user profile.

• The user will be redirected to LearnWeb2.0 page that is now able to execute an action
The authorization has to be done only once per session, or even once per Web2.0 tool (depending on the API offered possibility of the tool). This means, that successive accesses of the Web2.0 tool will omit the steps 2 and 3. The user will be able to execute the action through LearnWeb2.0 in one step. As well in case the user logs out of the Web2.0 tool manually, she will have to authenticate herself again for accessing the desired function.

9.1.3 My Home Page

This section is the center of the web application for managing resources.
After to be logged the My HomePage will be more or less similar to this one:
From here the user will be able to access to all external web tools and internal functionalities.

**My Profile**
After registration a first step that a normal user should perform is the update of the profile. Currently the profile contains only the credential the user uses to access external tools like YouTube, Flickr etc.

As shown below the user has the possibility to add login and password within the system. This will allow the system to automatically log the user in the external application without re entering the credentials.

The credentials will be stored ENCRYPTED, for this reason the user will be asked to use its own LearnWeb password to crypt or decrypt credentials. In this page, two action are allowed:

- Adding New credential
- Update Existing.

In case 1. the user has to fill the form, insert its own password and press save.
In case 2, the user has first to insert the password and click “Decrypt” to retrieve and decrypt credentials, and after he can proceed as in the point 1.

In the left the user can access other personal info, like bookmarks (currently a link to del.icio.us).

**My resources**
The link “My resources” will redirect the user to this page:
In this page the user will the resource he has added to fedora. He can have a previous of the resource by clicking on the title or he can edit related metadata by clicking on “Edit Metadata”. In the list the user can also most important resource information like Description, Type and related Category.
My Tags

Using this page the user can access to all tags he has used for resources tagging.
MyComment

This page is very useful to have direct access to all resource a user has commented. Each element of the list represent a comment. It contains the title of the comment, the comment, a link to the commented resource and a timestamp.

My Rates
This is very similar to my resources, it contains a list of rated resource and a direct access to it.

9.1.4 Search Page
The Search Page is used to find knowledge resources by:
- keyword search in the LearnWeb2.0 repository (Fedora), YouTube, Flickr and GroupMe;
- search/browse within the defined LearnWeb2.0 categories;
- search by tags to discover related resources.

Figure 8 shows a screenshot with the results for search by keyword(s).
For each resource the following information is shown:

- **Title** – the title of the resource (as a link). When the user clicks on the title link, the resource is previewed in the View Page (if the source is Fedora) or in the Add/Upload Page (if the source is YouTube, Flickr or GroupMe).
- **Description** – the description of the resource;
- **Source** – the source of the resource (Fedora, YouTube, Flickr, GroupMe);
- **Author** – the author of the resource;
- **Type** – usually the MIME format of the resource;
- **Category** – the category associated with the resource (as a link). When the user clicks on a category link, a search within this category is performed;
- **Tags** – the tags associated with the resources (as links). When the user clicks on a tag link, a search for related resources with this tag is performed;
- **Rating** – the rating of the resource in a 5 stars scale;
- **Popularity** – the popularity of the resource;
- **Last comment** – the last comment for the resource.

The list of resources can be sorted by clicking on the column headers.
9.1.5 View Page

The View Page is used to preview resource stored in the LearnWeb2.0 repository (Fedora repository). From this page the user can also rate the resource, tag the resource with a keyword and make comment about the resource. Figure 9 show a screenshot of the View page.

![Figure 9: A screenshot of the View Page.](image)

The View page is loaded when the user clicks on the title of a resource stored in the repository from the results of the Search Page or My resources from My Homepage.

The resources are previewed in the following way:
- videos from YouTube are shown and can be viewed in Flash Player;
- images (including images from Flickr) are previewed as small image (thumbnails). When the user clicks on the thumbnail, the image is viewed in full size;
- HTML pages are previewed as small images (thumbnails). When the user clicks on the thumbnail, the HTMP page is open in a new browser window;
- PDF documents are shown as an icon. When the user clicks on the icon, the PDF document is opened in a new browser window;
- All other resources are shown as an icon. When the user clicks on the icon, the resource is opened in a new browser window.
The URL of the resource is shown beneath the picture/thumbnail of the resource so the user can easily copy it. For videos in YouTube also and Embed field is shown. The user can copy it in order to embed the video in own HTML pages.

The View page displays also the current rating of the resource, the tags associated with the resource, and the comments of the users about the resource.

From this page the user has the possibility to rate or tag the resource and to make comments about the resource. Note that the user has to be logged in to use these features.

To rate the resource has to click on the stars for rating. The user can rate a resource only once! The system will not allow her/him to rate the resource a second time.

To insert a tag the user has to fill in the textbox and press the **Go** button.

To insert a comment the user has to type in the comment in the text area and press the **Publish comment** button.

If the user is the owner of the resource he is able to upload a modified version of the resource by clicking on the **Upload modified version** link. Then an Edit page (similar to the Add/Upload Page) is displayed.

### 9.1.6 Metadata Editor

The Metadata editor is designed to edit/update the Dublin Core metadata that is stored for each resource in the Fedora repository. The editor is a web based application written in PHP using the CakePHP framework. It uses the web services exposed by LearnWeb2.0 and is integrated in the LearnWeb2.0 tool.

The metadata for the resources is based on the Dublin Core metadata standard. The standard defines a simple yet effective element set for describing a wide range of networked resources. The Dublin Core standard includes two levels: Simple and Qualified. LearnWeb2.0 uses the Simple Dublin Core which comprises the following fifteen elements:

- **Title** - the name given to the resource. Typically, a Title will be a name by which the resource is formally known.
- **Subject** - the topic of the content of the resource. Typically, a Subject will be expressed as keywords or key phrases or classification codes that describe the topic of the resource.
- **Description** - an account of the content of the resource. Description may include but is not limited to: an abstract, table of contents, reference to a graphical representation of content or a free-text account of the content.
- **Type** - the nature or genre of the content of the resource. Type includes terms describing general categories, functions, genres, or aggregation levels for content.
LearnWeb2.0 uses for example *Image, Video, HTML document, PDF document*, etc. for values of this element.

- **Source** - a reference to a resource from which the present resource is derived.
- **Relation** - A reference to a related resource.
- **Coverage** - the extent or scope of the content of the resource. Coverage will typically include spatial location (a place name or geographic co-ordinates), temporal period (a period label, date, or date range) or jurisdiction (such as a named administrative entity).
- **Creator** - an entity primarily responsible for making the content of the resource. Examples of a Creator include a person, an organization, or a service. Typically the name of the Creator should be used to indicate the entity.
- **Publisher** - the entity responsible for making the resource available. Examples of a Publisher include a person, an organization, or a service. Typically, the name of a Publisher should be used to indicate the entity.
- **Contributor** - an entity responsible for making contributions to the content of the resource. Examples of a Contributor include a person, an organization or a service. Typically, the name of a Contributor should be used to indicate the entity.
- **Rights** - information about rights held in and over the resource. Typically a Rights element will contain a rights management statement for the resource, or reference a service providing such information. Rights information often encompasses Intellectual Property Rights (IPR), Copyright, and various Property Rights.
- **Date** - a date associated with an event in the life cycle of the resource. Typically, Date will be associated with the creation or availability of the resource.
- **Format** - the physical or digital manifestation of the resource. Typically, Format may include the media-type or dimensions of the resource. Examples of dimensions include size and duration. LearnWeb2.0 usually uses the MIME type of the resource for value of this element.
- **Identifier** - an unambiguous reference to the resource within a given context. Recommended best practice is to identify the resource by means of a string or number conforming to a formal identification system. LearnWeb2.0 uses the Fedora resource identifier (in the format `resource:nnn`) for the value of this element.
- **Language** - a language of the intellectual content of the resource.

LearnWeb2.0 uses resource metadata for searching/discovering resources and for proper view/manipulation of the resources.

In LearnWeb2.0 the owner of the resource stored in the Fedora repository is responsible for supplying the metadata for the resource. Only the owner can use the Metadata editor to edit/fill in the values of Dublin Core elements. The user must be logged in with his PCM user name and password to use the metadata editor. Figure 10 shows a screenshot of the Metadata editor.
The metadata editor can be accessed from MyHomepage -> My Resources by clicking on the Metadata editor link for a given resource.

### 9.1.7 Add/Upload Resource

#### 9.1.7.1 Add Page

The Add/Upload page is used to add/upload resource to the LearnWeb2.0 repository (Fedora repository). It can be accessed by selecting Upload File from Create/Upload Resource menu on My HomePage.

The user has to be logged in to use this page. Figure 11 shows a screenshot of the Add/Upload page.

There are two type of resources that are stored in the LearnWeb2.0 repository (Fedora repository):
- Web resource – the content of the resource is stored somewhere on the Web and it’s Web address (URL) is stored in the Fedora repository;
- File resource – the content of the resource is stored in the Fedora repository.
The user has to select the type of the resource (Web resource or File resource) and enter the URL of the resource or browse and select a file to upload to the repository.

Each resource is stored under a Category. So the user has to choose a category from the categories tree.

**Note:** Categories should be created by the administrators. For testing purposes an Add Category page is implemented where new categories can be added to the categories tree. The address of the page is:

http://phpcake.it.fmi.uni-sofia.bg/categories/add

The user also has to fill in the Dublin Core metadata fields describing the resource (detailed description of these fields is given in section 5 Metadata editor). The **Title** and the **Description** of the resource are required fields.

For proper view and manipulation of resources it is recommended to fill in the values of the Dublin Core fields **Type** and **Format** according to Table 1.

For videos in YouTube the **Type** should be **Video** and **Format** should be `application/x-shockwave-flash`. 
For images in Flickr the **Type** should be *Image* and **Format** should be *image/jpeg*.

The user can also add a tag and a comment to the resource from this page.

When a resource is from a Web 2.0 tool (YouTube, Flickr, etc.) it is recommended also to fill in the DC field **Source** with the name of the tool (for example *YouTube* or *Flickr*).

<table>
<thead>
<tr>
<th>Resource Format</th>
<th>DC Type</th>
<th>DC Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plain text</td>
<td>Text document</td>
<td>text/plain</td>
</tr>
<tr>
<td>Html text</td>
<td>HTML document</td>
<td>text/html</td>
</tr>
<tr>
<td>XML text</td>
<td>XML document</td>
<td>text/html</td>
</tr>
<tr>
<td>Document “.doc”</td>
<td>Word document</td>
<td>application/msword</td>
</tr>
<tr>
<td>Spreadsheet “.xls”</td>
<td>Excel document</td>
<td>application/vnd.ms-excel</td>
</tr>
<tr>
<td>Presentation “.ppt”</td>
<td>PowerPoint presentation</td>
<td>application/vnd.ms-powerpoint</td>
</tr>
<tr>
<td>Document “.pdf”</td>
<td>PDF document</td>
<td>application/pdf</td>
</tr>
<tr>
<td>Image</td>
<td>Image</td>
<td>image/gif</td>
</tr>
<tr>
<td></td>
<td></td>
<td>image/jpeg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>image/png</td>
</tr>
<tr>
<td></td>
<td></td>
<td>image/bmp</td>
</tr>
<tr>
<td>Video</td>
<td>Video</td>
<td>application/x-shockwave-flash</td>
</tr>
<tr>
<td></td>
<td></td>
<td>video/avi</td>
</tr>
<tr>
<td></td>
<td></td>
<td>video/mpeg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>video/quicktime</td>
</tr>
<tr>
<td>Audio</td>
<td>Audio</td>
<td>audio/mpeg3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>audio/wav</td>
</tr>
<tr>
<td></td>
<td></td>
<td>audio/midi</td>
</tr>
<tr>
<td>Recognized binary file (zip, exe…)</td>
<td>ZIP file</td>
<td>application/zip</td>
</tr>
<tr>
<td></td>
<td>Executable file</td>
<td>application/octet-stream</td>
</tr>
<tr>
<td>Unrecognized binary file</td>
<td></td>
<td>application/octet-stream</td>
</tr>
<tr>
<td>UoLs</td>
<td>Unit of Learning</td>
<td>application/zip</td>
</tr>
</tbody>
</table>

**Table 1. Recommended DC Type and Format values**

The Add/Upload page is used also for previewing resources that are not stored in the Fedora repository. When the user searches for resources and clicks on the title of resource
found in YouTube, Flickr, etc., the Add/Upload page is loaded with a preview of the resource (if possible). In this way the user can view the resource and easily add it to the repository. Figure 12 shows a screenshot of the Add/Upload page with a preview of an YouTube video.

![Add/Upload Page with preview](image)

**Figure 12:** Screenshot of the Add/Upload Page with preview.

### 9.1.7.2 Upload to Web2.0 Tools

It is possible to upload local resources from the desktop of the user directly to the web2.0 tools. For this purpose user goes to his home page and activates the update menu by going over with the mouse. The offered options are:

- Create a new group to GroupMe!
- Upload a picture to Flickr
- Upload an audio file to Ipernity
- Upload a video file to YouTube
- Upload other files (*.zip, *.doc,....) to Fedora directly.
After clicking on the resource type of the interest the authorization process will be started as described in 2.2. Finally the upload page will be displayed.

The user fills the required metadata (Title, Description, Tags) and the path to the resource into the offered form and uploads it by clicking on the button “Publish Resource”. Finally the uploaded resource will be offered to be added to Fedora with the “add” functionality, described in 7.1

Resource groups are an exception. Since the provided API is currently under development, the integration with LearnWeb2.0 is looser. After clicking on the “Create a new group” link, the user will be redirected to the GroupMe! page. The created group can than be added manually as a bookmark, as described in 7.1.
9.2 Release Notes of LearnWeb v.0.3, belonging to ID5.16

9.2.1 Release Notes

9.2.1.1 Authentication (SU)

LearnWeb v.0.3 and the KRService v.0.3 use CAS (Central Authentication Service) server for SSO user authentication within TENCompetence.

A more detailed description of how CAS works is given in the document ID5.15 (New Core specifications v2). When a user tries to access LearnWeb for an action that requires authentication; the browser is redirected to the CAS server. The CAS server is presented an authentication form, and after successful login, the server sends a cookie called TGC (Ticket Granting Cookie) to the browser.

Using the CAS mechanism the user is also authenticated for accessing the CASified KRServices and TENC server. Also, the user can access other CASified TENCompetence tools (WebPDP, OVT) without logging in again.

The CASified versions of LearnWeb and KRService are deployed to the following servers:
- https://cas-learnweb.it.fmi.uni-sofia.bg/
- https://pcm.it.fmi.uni-sofia.bg:8443/FedoraKRSM/fedora/.

9.2.2 Registration (SU)

All TENCompetence web tools will use a centralized single place (web page) for user registration. So user registration stays out of the scope of LearnWeb.

Meanwhile, by the time the centralized user registration is implemented, LearnWeb supports and maintains the following page for user registration:

http://phpcake.it.fmi.uni-sofia.bg/registrations

9.2.3 Single Sign On (UHANN)

Release Notes:

In the current version the form providing user credentials is dropped, instead an authorisation mechanism is attached to each Web2.0 tool functionality link. The user authorizes her self once per tool and session automatically by clicking on the link to functionality (bookmarks, upload ect.).
Sources:

Executables:
- http://phpcake.it.fmi.uni-sofia.bg/upload/authorizeupload?type=image
- http://phpcake.it.fmi.uni-sofia.bg/upload/authorizeupload?type=audio
- http://phpcake.it.fmi.uni-sofia.bg/upload/authorizeupload?type=video
- http://phpcake.it.fmi.uni-sofia.bg/webauthorization/authorize?tool=delicious&callback=show

TODO: The services for uniform SSO are ready at the test server (InterWeb). We plan to integrate them into release at the next possible time point. The service has to be moved to SU and has to be set up. The services have to be integrated into the software, tested and debugged.
The credentials are now stored at the file system of the server. In the future they should be stored in the user profile.

9.2.3.1 Home page and pages flow (ILABS+SU+ALTRAN)

Release Notes:

Three columns added to the home page:
- Welcome message
- List of last inserted resources
- Empty column. It will contain a tag cloud.

Rearranged links in My Home Page. Created two columns: manage resources and my resources.

A new service **Get latest resources** has been implemented in the KRServices.

In the current version there is a link “Back” to go back in any page, always this link is at the bottom of the page.

Sources:
Executables:
- http://phpcake.it.fmi.uni-sofia.bg

9.2.3.2 Toolbars (UHANN)

Release Notes
LearnWeb2.0 Toolbar v.0.2 2009-05-15.

New:
Shortcuts to LearnWeb2.0 pages.
Shortcuts to services upload pages.
Add Resource (current page).
LearnWeb2.0 search.

The LearnWeb2.0 toolbar enables the users to interact with LearnWeb2.0 in her browser at anytime. It’s a shortcut interface for the LearnWer2.0 users.

The current version supports:
- direct links to LearnWeb2.0 pages and functionalities:
  Access to LearnWeb2.0 Resource managers;
  Access to LearnWeb2.0 and other integrated service providers for uploading content;
- Instant adding resource to LearnWeb2.0, allowing adding a web resource directly while visiting it, without the burden to search it from LearnWeb2.0;
- LearnWeb2.0 search box.

The images bellow shows the current status of the toolbar:

Fig 2.5.1. LearnWeb2.0 toolbars

Fig 2.5.2. LearnWeb2.0 toolbars
Fig 2.5.3. Direct links to LearnWeb2.0 pages and functionalities

Fig 2.5.4. Direct links to LearnWeb2.0 pages and functionalities

Fig 2.5.5. Add current page to LearnWeb repository

When adding the current resource to LearnWeb2.0 the user is redirected to the LearnWeb2.0 “add resource" page with the contents of the resource and with fields already filled. In addition the users can tag/comment/rate the resource.

Fig. 2.5.6 LearnWeb2.0 “Add resource” page redirected from the toolbar

Additionally a search field for the resources, annotated in LearnWeb2.0 will be available in the bar (see right part of figure 3.2.2). This brings the user directly into LearnWeb search page with the list already filled.
Sources:

Executables:

TODO:
For the next releases we plan to integrate the toolbar with Del.icio.us and SpreadCrumbs. For Del.icio.us integration the user will have her bookmarks accessible from the toolbar. For SpreadCrumbs the user will be able to annotate pages in-context, adding stick-notes no any web-resource (which also includes integration with facebook – for further information about the SpreadCrumbs application refer to the facebook application site: http://apps.new.facebook.com/spreadcrumbs). The next release will also include friendly interfaces to edit configuration options for test/development/usage proposes.

9.2.3.3 Tag Clouds (Altran+SU)

Release Notes:
In the current version there are two tag clouds, one in “Home”, below the search box, with 100 tags of all LearnWeb and antoher one in “My HomePage” > “My Tags” section with the tags from the user.

Sources:

Executables:
- http://phpcake.it.fmi.uni-sofia.bg/search
- http://phpcake.it.fmi.uni-sofia.bg/myhome/tags

A new service has been developed in KRServices that wraps up the Fedora Resource Index Search. This service is used to make queries for the information needed for building the tag clouds.
9.2.3.4 Downloading (SU)
LearnWeb provides explicit URL of the resources when previewed. This is needed for other tools to make a link to a resource in LearnWeb.

For videos from YouTube, LearnWeb provides also embeddable code so the users could easily embed the videos in their own HTML pages.

LearnWeb also improves the preview of images and photos from Flickr. Information about the different available photo sizes is extracted using the Flickr API. So the users can select to preview the resource in one of the following sizes (if available): square, thumbnail, small, medium, large and original.

9.2.3.5 Supporting UoL (SU)
Units of Learning (UoLs) are stored in Fedora as File resources in .zip format or as Web resources with an URL pointing to a .zip file.

UoLs can be uploaded to Fedora by ReCourse (using the existing KR services) and/or manually from LearnWeb. Searching and retrieving can be done by the existing KR Services.

The following new functionality has been implemented. When previewing a UoL resource the user can click on the “Publish UoL to CopperCore” link. Then the UoL will be published to CopperCore using a service in Linktool (written by Roy Cherian). After that the Linktool is opened in a new browser window and the user can login and create a run with the uploaded UoL.

9.2.3.6 Category management (ILABS+SU)
Created the following pages:
- New category
- Delete category
- Reassign resources
- Edit category.
Created an admin page containing links to all the category management pages. Access to all these pages is granted only to users with the admin role.

Sources:

Executables:
- http://phpcake.it.fmi.uni-sofia.bg/admin
The following new services are implemented in the KRService to support the category management:
- Modify category service
- Remove category service
- Resource(s) category reassignment
- Get user roles.

The last service is needed as the category management should be done only by administrators (i.e. users with role “admin”).

9.2.3.7 Resource groups (UHANN)

Release notes:
Since the group integration required some essential changes in the system, it is not available right now in the CVS, but only at the test server. The authorization API at GroupMe! is ready, so it is possible to create groups and add resources using it.

Sources:
- Not yet available in the CVS.

Executables:
- http://lw.l3s.uni-hannover.de/myhome/groups

TODO: The group view should be integrated into LearnWeb2.0. Assign resources to groups while adding, or upload should be made possible. It should be possible to have more than one contributor to the group. The authorization should be performed through a SSO mechanism.

9.2.3.8 Bookmarking (UHANN)

Release notes:
Bookmarking is available. An authorization wrapper is written. It is possible to view/manage existing bookmarks, add new bookmarks and add LearnWeb2.0 resources as bookmarks.

Sources:

**Executables** (User has to be logged in to execute):
• http://phpcake.it.fmi.uni-sofia.bg/myhome
• http://phpcake.it.fmi.uni-sofia.bg/webauthorization/authorize?tool=delicious&callback=show

**TODO**: “Delicious” access should be covered using single SSO mechanism like other tools.

### 9.2.3.9 Sharing (ALTRAN+SU)

**Release Notes:**
To ease the sharing with others, in the resource page there is a form that allows the user to insert one or several email addresses. This will send a message with a link to the resource.

**Sources:**

**Executables:**
• http://phpcake.it.fmi.uni-sofia.bg/resources/view/resource:943

The following services for relations between existing objects in Fedora have been implemented in KRService:
• add relation
• delete relation.
These services can be used to express relations such as “isSharedTo“ and “invitedToShare” between resources and users. Also the new service Resources index search can be used to make queries about to which users a resource is shared to, which users are invited to share a resource, etc.

### 9.2.3.10 Integration with PDP (SU)

For the integration with PDP the KRService provides services to store, search and retrieve Learning activities in Fedora.

An improvement in the search service has been implemented to allow also search for resources by their “type” and “source”.

Since LearnWeb does not support the TENCompetence Domain Model, the integration will be done on the WebPDP side.
In WebPDP facilities for publishing Learning Activities in Fedora, searching and importing Learning Activities from Fedora using the KR Services will be implemented.

### 9.2.3.11 Integration with PCM (SU)

**Release notes:**

An editor (*Policy Editor* in the following) which allows defining Protune policies by means of a user-friendly user interface has been developed. A brand-new architecture has been designed and set up in order to take into account the interplay among the Authorization Server, the Policy Editor and LearnWeb2.0: in particular the interface of the Authorization Server has been reengineered and made more consequent.

**Sources:**


**Executables:**

- Policy Editor: [http://10c.l3s.uni-hannover.de:9080/ProACEEditor/](http://10c.l3s.uni-hannover.de:9080/ProACEEditor/)

Notice that the Policy Editor must be invoked with the required parameters, like in the following example.

```
```

**TODO:** The latest version of the Authorization Server has to be properly tested. The integration of the Policy Editor and the Authorization Server with LearnWeb has to be finalized.

### 9.2.3.12 Integration with TenTube (ILABS + SU)

Added link to this tentube page:
[http://labs.calt.insead.edu/prototyping/Tentube/tentube.html](http://labs.calt.insead.edu/prototyping/Tentube/tentube.html)

on every user icon in comment lists.

The search service in the KRServices has been extended also to search in TenTube (it calls a service in TenTube).

The Preview and Add pages in LearnWeb have been extended to preview videos from TenTube.
9.2.3.13 Comment rating (ILABS+SU)

Added user rating buttons to comments in resource pages.

The List resource comments service in KRServices has been updated to return also the comment rating. Also, a new service Get rating of a comment is implemented.

9.2.3.14 Managing abuses (ILABS+SU)

Added a report abuse form visible for logged users in resource pages.

Reported abuses are sent to learnwebadmin@gmail.com

Password=tencompetence

A new service Report abuse for a user has been implemented in the KRServices that increments the Abuses counter for a user.

9.2.3.15 Stimulating users (ILABS+SU)

Added an icon representing the class of each user to comment lists.

A new service Get user counters has been implemented in the KRServices. The counters for a user are:

- **resources** - a counter of the uploaded/added resources.
- **comments** - a counter of the comments on resources of other users.
- **comments_rates** - a counter of the rates on comments of other users. This counter is incremented at the end of the comment-rating function.
- **resources_rates** - a counter of the rates on resources of other users.
- **tags** - a counter of the tags on resources of other users.
- **feedback_balance** - the feedback-balance. This balance is incremented/ decremented at the end of the comment-rating function.
- **abuses** - a counter of the abuses received from other users. This counter is incremented manually by the system administrator (using the service Report abuse for a user).

Also the following existing services have been updated to increment the corresponding user counters:

- Add user;
- Create resource;
- Rate a resource;
- Comment a resource;
- Tag a resource;
- Rate a comment.
9.3 Evaluation Methodology, belonging to ID5.17

In order to provide a complete analysis of all the system functionalities we have developed a Unit and Integration tests. The Unit testing searches for defects in, and verifies the functioning of software that is separately stable. It has been run by a software expert different from the developer. The Integration testing consists in verifying if the units work evaluated in the Unit testing are correctly integrated and related among them: interfaces between units, complete processing chain and relation controls within the system including several modules and/or in combination with database. We also performed a test of the functionality requirements established in deliverable ID5.15 and ID5.16. The results of these tests are indicated and explained in the following tables:

- Table 1: Unit and Integration Test: Calamities
- Table 2: Unit and Integration Test: Functionality
- Table 3: Unit and Integration Test: Integration
- Table 4: Unit and Integration Test: Storage
- Table 5: Functional Requirements Test.

We haven’t distinguish the aspects that correspond to the Unit test or the Integration test for providing an easy reading, however the distinctions and a more detailed description of each of them are explained in (D 4.1 Evaluation Plan, p. 118 and 119). In the observation column, we marked with Fail (in red) those aspects that doesn’t work properly and have to be reviewed, with Ok (in green) those which work properly and with Ok (in orange) those which work fine but have to be reconsidered for different aspects.