



D3.3.2v2 Complete conventional infrastructure implemented

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Abstract.

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This deliverable briefly reports on the final version of the conventional learning unit repository, which has, as reported in D3.3.2v1, been based on the Universal Brokerage Platform.

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Changes

Version	Date	Author	Changes
0.1	9-12-2004	Jörg Diederich, Wolf Siberski	Initial version
0.2/1.0	13-12-2004	Jörg Diederich	Added comments from A. Stutt (QC)

Executive Summary

This deliverable briefly reports on the final version of the conventional learning unit repository, named VISWER, which has, as reported in D3.3.2v1, been based on the Universal Brokerage Platform.

It also comprises a small manual for learning resources providers explaining how to insert learning resources into VISWER.

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1 Introduction

One main task of the education area within KnowledgeWeb is to collect learning units about ‘Semantic Web Studies’ and related topics and to provide these learning units in a repository. As discussed in D3.3.2v1, the Universal Brokerage Platform (UBP) was best suited for the purpose of KnowledgeWeb. In particular, the platform is sufficiently flexible to support the four scenarios ‘Professional support’, ‘MSc support’, ‘Community of Practice’, and ‘Repository’ (cf. D3.1.1) and the necessary meta data (cf. D3.3.1). Thus, UBP was chosen for the KnowledgeWeb learning unit repository. It is similar to EducaNext¹, which is also based on UBP, both being different instances (of the same basic platform technology). The educational infrastructure will be part of the upcoming **Virtual Institute for Semantic Web Education** which will be responsible for the educational activities in KnowledgeWeb, but is also a partner with the Network of Excellence REWERSE. Therefore, the repository is called ‘**VISWER**’ (the **VISWE** Repository for Learning units) as it is intended to be managed by VISWE in the future beyond the end of KnowledgeWeb and REWERSE. Currently, VISWER is located at L3S and can be reached at:
<http://ubp.l3s.uni-hannover.de/ubp>.

2 The final design

In contrast to the first versions of the repository, which had the same design as the original EducaNext platform, VISWER now has its own design and logo, which are shown in the following figures.



Figure 1: VISWER logo

¹ <http://www.educanext.org>

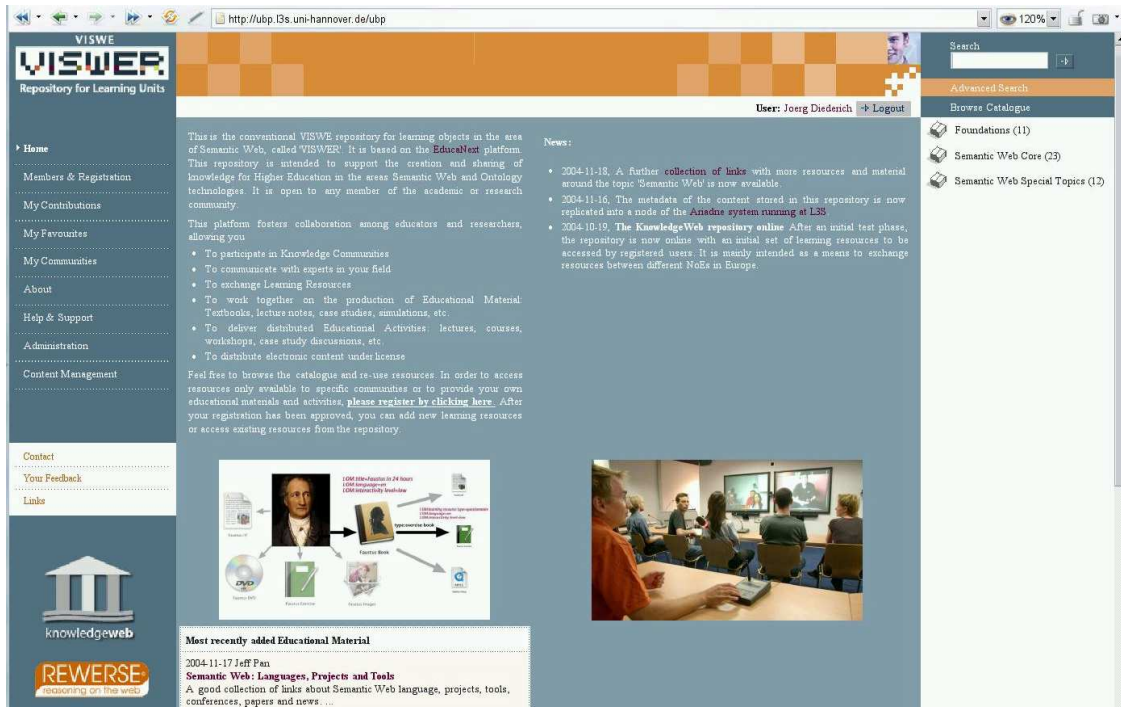


Figure 2: VISWER design

3 How to insert learning resources into VISWER

As we expect many people from different European institutions to insert their learning material into VISWER, the following description is intended as a small manual for this purpose.

Basically, 4 steps are necessary:

- 1) Register as a user on the portal (if you are not already registered). Visit <http://ubp.l3s.uni-hannover.de/ubp/regrApplyOverview>
 - a. You have to agree to the 'code of behaviour and terms of use' first

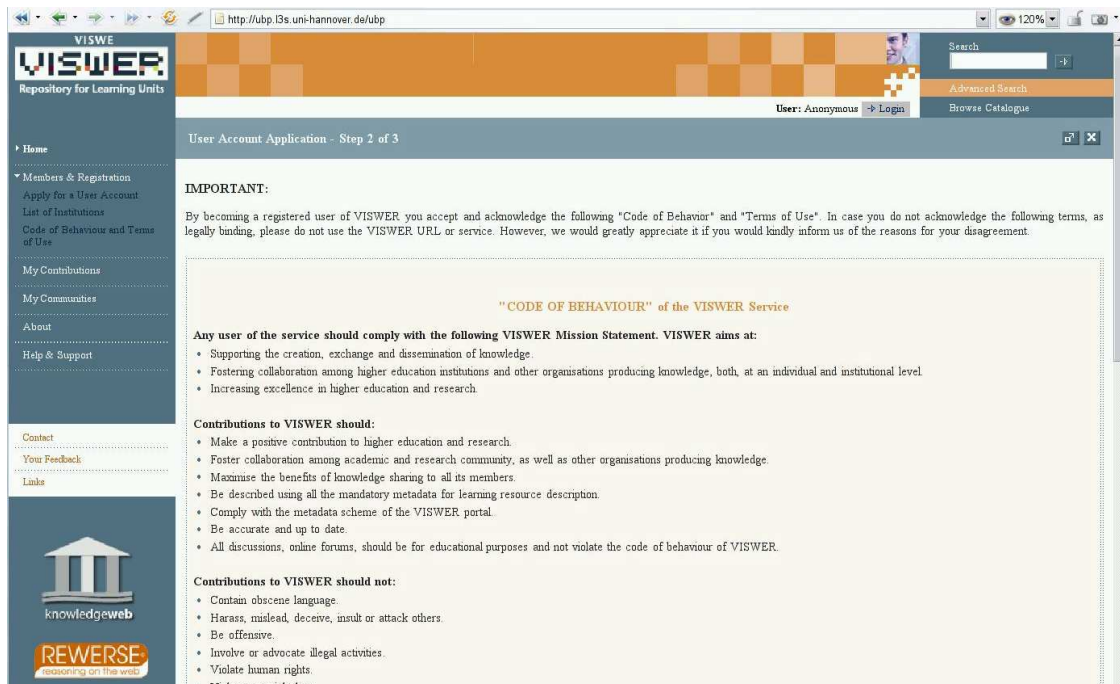


Figure 3: VISWER Code of Behaviour and Terms of Use

- b. Then you can specify your personal information which is used to create a local account for you. During this process you are asked to specify an institution to which you belong to. Look into the list of available institutions to see if it is already there, otherwise you have to define a new institution by selecting the 'other' institution. In case you are a private user, not associated to any institution, you can choose the 'none – individual user' option.

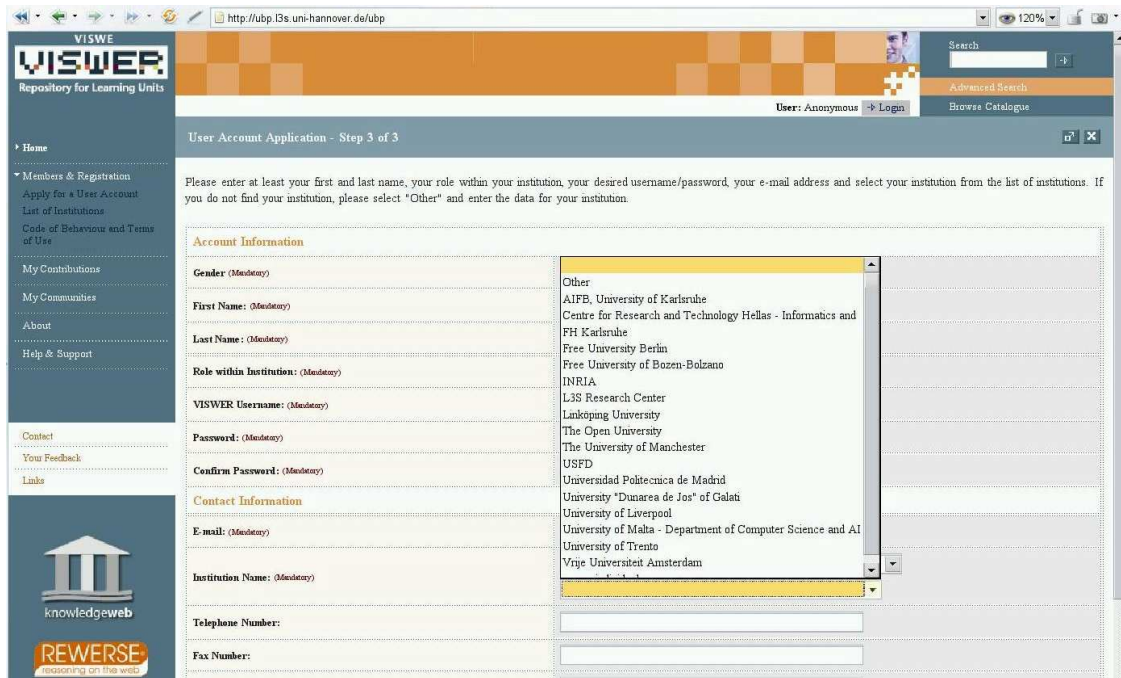


Figure 4: Apply for a VISWER account

- c. Wait for the approval of the administrator of VISWER.
- 2) Go to 'My contributions | Provide a new Learning Resource ' on the left side on the web page

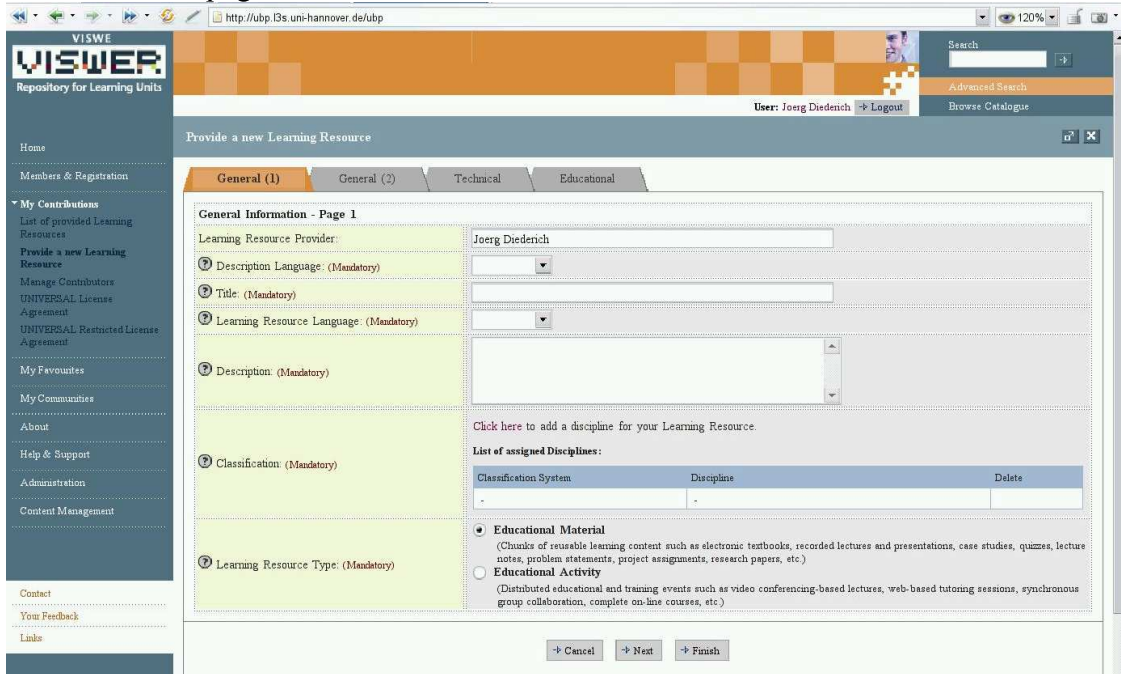


Figure 5: Provide a new learning resource

- 3) Enter the necessary data + meta data about your learning resource in the four available pages. Please provide as much information as possible since the meta

data will be used for searching in a later version of VISWER, especially when the number of learning units in the repository becomes very high. In particular you should consider:

- a. The classification of your learning resource into one of the categories:
 - i. Foundations (Logics, Web technologies)
 - ii. Semantic Web Core (Knowledge representation, Semantic Web technologies, Ontologies)
 - iii. Semantic Web Special Topics

It is important to carefully select one or more appropriate topics in order to match expectations of the learners who want to work with your resources.

- b. The learning resource type typically is 'educational material'
- c. Location: Please upload the material rather than providing a link to another web page. This is because we want to avoid broken links which tends to happen rather often (cf. the experience with the OntoWeb resource page). Do not forget to select a server for the upload, which is always 'Universal hosted server'.
- d. Please pay an especial attention to the 4th page with the educational meta-data. These are necessary to identify the right target audience (curriculum) and to specify the prerequisites (e.g. other material in the repository) among other data.

The screenshot shows the 'Provide a new Learning Resource' form in the VISWER interface. The 'Educational Information' tab is active, displaying several input fields and a dropdown menu. The 'Method of Instruction' dropdown is open, showing three options: 'Directed Learning', 'Self-directed Learning', and 'Collaborative Learning'. The form also includes fields for 'Educational Objectives', 'Location of Additional Information', 'Curriculum (Mandatory)', 'Prerequisites', and 'ECTS Credits'. At the bottom of the form, there are 'Previous', 'Cancel', and 'Finish' buttons. The left sidebar contains navigation links such as 'Home', 'Members & Registration', 'My Contributions', 'My Favourites', 'My Communities', 'About', 'Help & Support', 'Administration', and 'Content Management'.

Figure 6: The meta-data of your new learning resource

As a result of this activity (after a click on the 'finish' button...) the learning resource and its meta-data is stored as your personal contribution. This will not yet be publicly available (i.e., you are the only one who can change the data, not even the administrators are allowed to do so).

- 4) Finally, you have to offer your learning resource. First you specify the target audience (for all users including non-registered ones, for registered users only, for

a certain community only). You can further decide if the resources shall be visible in the catalogue even outside the specified target audience. Then, you have to choose a license under which you want to publish the resource, for example, a public domain licence or a free distribution for academic purposes only (with / without modifications). You can also specify a customized licence. Finally, you can specify a questionnaire to be used for the evaluation of the resource. Note however, that this feature is not in use yet as no evaluation questionnaires are available.

Figure 7: Making an offer for your learning resource

- 5) When you have finished your offer, the catalogue administrator will validate your offer and approve it if everything is ok.

Please, note also the recommendations on the VISWER how-to at:

<http://www.l3s.de/~diederich/kweb/viswer-howto.html>

where we have compiled a small up-to-date web page with important hints, on how to insert the resources into VISWER.

4 The ARIADNE backup repository

For experimental purposes, the meta-data kept in the UBP platform is copied automatically to an installation of the ARIADNE system, which is also available at L3S. This means that the ARIADNE system can be used as backup system in case of problems with the UBP-based solution.

The duplication of the learning units is currently limited to the meta-data only to avoid using a second user management process (meta-data can be exported / imported in both, UBP and ARIADNE, but not the user data).

The ARIADNE system can be reached at:

<http://kps.learninglab.uni-hannover.de:3000/silo/silo.jsp>



Figure 8: The ARIADNE Backup Repository

5 Integration of OntoWeb resources

The OntoWeb project also collected a significant amount of resources about Semantic Web related topics. In particular some external web pages with highly interesting topics were collected, which are not maintained by a KnowledgeWeb partner. Thus, we cannot ensure the availability of these resources. Therefore, to maintain the high quality of the content in VISWER, we do not store these external resources in the repository but instead maintain a separate web page containing these links.

The screenshot shows a web browser window displaying the VISWE (Repository for Learning Units) website. The browser's address bar shows the URL <http://ubp.l3s.uni-hannover.de/ubp/PUSHlinks>. The page features a navigation menu on the left with categories like Home, Administration, and Content Management. The main content area is titled "Background and additional resources" and contains several links with brief descriptions:

- Background and additional resources**: This page contains links to other material around the Semantic Web and its basics. Note that these links go to external web sites and may not be valid anymore (even though we have checked them).
- Guided Tour of Ontology**: This web page organizes some of the papers on this web site in a systematic reading list. Paper #1 presents a general overview of ontology and ongoing work in developing and applying ontologies to modern computer systems. The remaining papers address...
- Mathematical Background (Tutorial on Math and Logic for Knowledge Representation)**: This web page is a revised and extended version of Appendix A from the book *Conceptual Structures* by John F. Sowa. It presents a brief summary of the following topics for students and general readers of that book and related books such as *Knowledge R...*
- Knowledge Representation: Logical, Philosophical, and Computational Foundations**: Web pages related to the book of the same name.
- Ontology Development 101: A Guide to Creating your First Ontology**: This document is an ontology-development tutorial geared towards a novice user without any computer science or artificial intelligence experience. It presents the main concepts in ontologies, gives examples, and discusses common pitfalls and errors a...
- SHOE Tutorial**: The SHOE Tutorial consists of three documents. The first two give the basics for using SHOE. The third describes inferences, an advanced feature. These three documents do not comprise all of SHOE, but only give a taste of it, for all the features of...

Figure 9: The OntoWeb resource collection: background links

6 Summary and future work

This report describes the conventional platform in its final state after one year of KnowledgeWeb. The conventional platform is completed now and it is already in use. More than 30 learning units are currently available. However, further adaptations might become necessary, for example, if access to some resources should be restricted to VISWE members only (which is currently under discussion, cf. D3.1.2).