



D 3.3.4 Report on Collaboration with IMS Consortium and ProLEARN

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Abstract.

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This is a short report about the cooperation of KnowledgeWeb with the ARIADNE Consortium and ProLEARN regarding the usage of Learning Unit Metadata.

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The following partners have taken an active part in the work leading to the elaboration of this document, even if they might not have directly contributed writing parts of this document:

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Changes

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0.1	17-12-2004	Wolf Siberski	First Draft
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Executive Summary

This document is a short report about the cooperation of KnowledgeWeb with the ARIADNE Consortium and ProLEARN regarding the usage of Learning Unit Metadata. The cooperation with IMS consortium didn't take place as planned, because IMS is currently in a reorientation stage. However, part of the IMS metadata standards for learning units were used within the VISWE repository.

Instead of IMS, contacts to the ARIADNE Foundation were formed. These contacts were used to exchange information and promote the use of Semantic Web technology to the e-Learning community.

Cooperation with ProLEARN proceeded as expected. KnowledgeWeb partners participated in the design of the Semantic Web and Web Services based design of the learning resource network which is being built as part of ProLEARN. An agreement on the participation of KnowledgeWeb lecturers in the ProLEARN summer school to promote Semantic Web technology has been established.

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1. Introduction

The annotation of learning objects using metadata standards has long been recognized as crucial in the e-Learning community. Significant effort was put into the creation of standard metadata schemas to describe learning units. Results of this work include the IEEE/IMS standards ‘Learning Object Metadata’ (LOM), ‘Content Packaging’ (CP), etc. The main task in WP3.3 is to leverage existing systems for learning unit management and to enhance these using Semantic Web approaches. As a consequence: (a) the VISWE repository or portal will adhere to existing standards; and, (b) we will be able to promote any semantic enhancements to the e-Learning community while starting a discussion on how to develop current learning metadata approaches further toward full-fledged ontologies, based on Semantic Web standards.

2. Cooperation with ARIADNE

The cooperation with IMS consortium didn’t take place as expected, because IMS is currently in a reorientation stage. Instead, contact was established with the most important European player in this area, the ARIADNE foundation. The basic mission of ARIADNE is to enable better quality learning through the development of learning objects, tools and methodologies that enable a “share and reuse” approach for education and training. One technical aim to achieve this goal is the development of the ‘Knowledge Pool System’. The KPS holds learning objects and the metadata that describe them, so that they can be more easily managed and made available in appropriate contexts. ARIADNE continues to have a significant influence on the development of learning unit metadata standards.

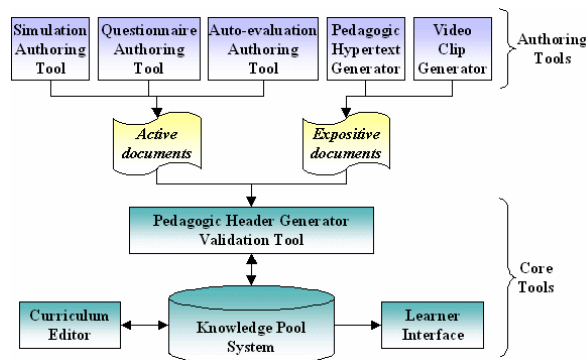


Figure 1: Overview of ARIADNE Systems

The research visit of the ARIADNE software architect Stefaan Ternier (from University of Leuven) at L3S was used for detailed discussions about the introduction of Semantic Web technology into the ARIADNE system. As a result of these discussions, the ARIADNE consortium will provide an interface to make learning unit metadata stored in ARIADNE repositories available as a RDF model. This will allow the integration of existing learning unit repositories into Semantic Web information systems.

Within KnowledgeWeb, an ARIADNE repository has been set up at L3S to store the VISWE learning units (in addition to the main VISWE repository, VISWER, which is based on the EducaNext platform). It is planned to use this repository as a test bed to experiment with semantic extensions.

3. Cooperation with ProLEARN

ProLEARN is a Network of Excellence which aims at bringing together the most important research groups in the area of professional learning and training, as well as other key organisations and industrial partners, thus bridging the currently existing gap between research and education at universities and similar organisations and the training and continuous education that is provided for and within companies.

The ProLEARN learning resource network has planned to make use of Semantic Web and Web Service technology from the outset. A tight cooperation has taken place in developing the 'Simple Query Interface', which supports queries based on RDF and ontologies. The adaptation of the RDF-based P2P infrastructure, Edutella, to the ProLEARN context is another area of joint work.

At a more mundane level there has been a great deal of collaboration between KnowledgeWeb and ProLearn in the development of the methods for collecting and reporting on network activities.

For 2005, ProLEARN has invited a speaker from KnowledgeWeb to give a lecture at the ProLEARN summer school. This will further promote the usage of Semantic Web approaches within the e-Learning community. On the other hand, VISWE will seek ProLEARN support regarding the further development of the learning services it will provide.