



Automatic translation of metadata

Introduction

The Standardized Contextualized Access to Metadata (SCAM)¹ is a system for managing RDF-based (Semantic Web) metadata². SCAM is developed at the department of Interactive Media and Learning (IML)³ at Umeå University in collaboration with the Knowledge Management Research Group⁴ at the Royal Institute of Technology (KTH). SCAM is mainly used for managing metadata in the context of Learning Object Repository (LOR), for managing and distributing digital learning resources and Learning Objects⁵. Metadata indexing is often done in one European language, while some of the resources are relevant for use in other European countries. This means that metadata has to be translated into several other languages, which is a time consuming and expensive process. This is for example the case in the MELT-project⁶, in which IML is an R&D partner.

Objective

The objective of this master project is to examine the possibility of automatic translation of metadata, and implement a prototype. Translation of metadata needs to be done according to two different principles: according to controlled vocabularies, such as the LRE⁷, and using translation software, such as Systran⁸ or similar. Translation of metadata needs to be done at run-time as well as “one-time” translation of complete archives.

The expected outcome of the project is a working prototype for metadata translation. The prototype is supposed to work as a standalone application that can interact with SCAM archives.

Previous knowledge

Java knowledge is needed, and knowledge (or an interest) about Ajax and Ruby is an advantage. Much of the development work will focus on web-based application development. It is also important that you have the ability to work independently.

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¹ <http://scam.sf.net/>

² <http://www.w3.org/2001/sw/>

³ <http://www.iml.umu.se/>

⁴ <http://kmr.nada.kth.se/>

⁵ http://en.wikipedia.org/wiki/Learning_Object

⁶ <http://info.melt-project.eu/>

⁷ http://insight.eun.org/ww/en/pub/insight/interoperability/learning_resource_exchange/metadata.htm

⁸ <http://www.systranet.com/>