Editing Learning Object Metadata: Schema Driven Input of RDF Metadata with the OLR3-Editor

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Introduction

In our group we have developed several learning repositories during the last 5 years. In the latest generation, the Open Leaning Repository (OLR) a course was represented completely by RDF-metadata. Using standard and self-defined metadata schemas to represent the structure and meta-information of different learning objects, we decided to make our latest version of the OLR (OLR3) flexible for all kinds of schemes and integrated a browser-based and schema-driven editor where the author can choose metadata according to any RDF-schema available on the internet.

OLR3

Our Open Learning Repository, Version 3, the OLR3 system, is implemented in Java and works as a JavaServlet, running on an Enhydra Application Server (open source software). It is connected to an Oracle Database via JDBC, which is used to store the metadata entered by course authors and students. RDF schemes, needed for either the annotation of metadata or the import of externally prepared metadata, can come from anywhere in the internet.

OLR3 provides a web-browser based metadata editor/viewer and provides two major user interfaces: One for readers with a more graphically oriented view and only minor functions for manipulation of the underlying metadata. The other one designed for authors to provide a schema-driven and browser-based metadata editor with flexible binding to different RDF schemes.

OLR3 Schema Editor

The OLR3 editor can handle any given RDF scheme and - once it is registered to the editor - use it for metadata input. Thus, the set of available RDF properties will only be limited by the number of available schemes that define the properties. An author can choose any desired property from existing standards (e.g. LOM, DC) and compose his own set of metadata attributes to annotate learning resources.