

LRMI, Learning Resource Metadata on the Web

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Abstract

The Learning Resource Metadata Initiative (LRMI) is a collaborative initiative that aims to make it easier for teachers and learners to find educational materials through major search engines and specialized resource discovery services. The approach taken by LRMI is to extend the schema.org ontology so that educationally significant characteristics and relationships can be expressed. This, of course, builds on a long history developing metadata standards for learning resources. The context for LRMI, however, is different to these in several respects. LRMI builds on schema.org, and schema.org is designed as a means for marking up web pages to make them more intelligible to search engines; the aim is for it to be present in a significant proportion of pages on the web, that is, implemented at scale not just by metadata professionals. LRMI may have applications that go beyond the core aims of schema.org: it is possible to create LRMI metadata that is independent of a web page for example as JSON-LD records or as EPUB3 metadata.

The approach of extending schema.org has several advantages, starting with the ability to focus on how best to describe the educational characteristics of resources while others focus on other specialist aspects of the resource description. It also means that LRMI benefits from all the effort that goes into developing tools and community resources for schema.org. There are still some challenges for LRMI, one which is particularly pertinent is that of describing educational frameworks (e.g. common curricula or educational levels) to which the learning resources align. LRMI has developed the means for expressing an alignment statement such as “this resource is useful for teaching subject X” but we need more work on how to refer to the subject in that statement. This is challenge that conventional linked data for education could address.

ACM Classification

K.3 Computers and Education

Keywords

educational metadata; resource discovery; linked data; schema.org; lrmi.



Short Bio

Phil Barker is a research fellow at Heriot-Watt University who has worked supporting the use of learning technology in Higher Education for twenty years. For much of this time he has worked with Lorna M. Campbell as part of Cetus. His work focuses on supporting the discovery and selection of appropriate

resources, and he has contributed to the development of a number of learning resource metadata specifications. He was on the technical working group of the learning resource metadata initiative and has since worked on the third phase of LRMI promoting its uptake and use and is currently a member of the LRMI Task Group of the Dublin Core Metadata Initiative. Previously he has contributed to the effort to create a Application Profile of Dublin Core for Education, and in the even dimmer past edited and co-authored the IMS Meta-data Best Practice Guide for IEEE 1484.12.1-2002 Standard for Learning Object Metadata.