



Linked Learning 2013 (LILE2013) 3rd International Workshop on Learning and Education with the Web of Data

The annual Linked Learning workshop series has been established 3 years ago and gathered a significant and constantly growing community since its first edition, proving the high relevance and timeliness of the workshop scope: use of Linked Data in educational scenarios. Building on the previous editions (Linked Learning 2011¹, Linked Learning 2012²) and its growing community, this workshop will provide a forum to discuss approaches making use of Web Data resources and technologies, especially linked data, for teaching, learning and education.

Distance learning and openly available educational resources on the Web are becoming common practices with public higher education institutions as well as private training organizations realizing the benefits of online resources. However, most of the research in E-learning has been focusing on creating a variety of metadata formats and environments for the exchange of educational resources. This has led to a fragmented landscape of Web standards and approaches used in the educational domain to expose resources, ranging from domain-specific educational standards to general-purpose approaches. Consequently, it is not only the case that interoperability between repositories of educational resources remains a challenge, but also that educational Web resources remain underexploited, as their connection, reuse and repurposing are barely supported by such technologies.

The recent success of the Linked Data paradigm, fundamentally based on W3C standards such as RDF and SPARQL, has triggered a wave of more pragmatic efforts aiming at exploiting and applying Linked Data principles to all sorts of Web data. This made available the vast amounts of public data such as DBpedia³, WordNet RDF⁴ or the data.gov.uk⁵ initiative. To this end, the Linked Data movement is also supporting the exposure of large amounts of reusable data and resources, ranging from domain-specific expert vocabularies to, for instance, data about cultural heritage (e.g., the Europeana dataset⁶), which has the potential to fundamentally aid and transform the production, delivery and consumption of educational services and content. More recently, these approaches started to get adopted by education institutions, with Linked Data technologies being used to expose public information regarding course offering, open educational resources and educational facilities in a readily accessible and reusable way. This has led to the creation of an embryonic “Web of Educational Data” including institutions such as the Open University (UK)⁷ or the National Research Council (Italy)⁸, as well as Linked Data about publicly available

¹ <http://projects.kmi.open.ac.uk/meducator/linkedlearning/>

² <http://linkedlearning2012.wordpress.com/>

³ <http://dbpedia.org/>

⁴ <http://www.w3.org/TR/2006/WD-wordnet-rdf-20060619/>

⁵ <http://www.data.gov.uk>

⁶ <http://ckan.net/package/europeana-lod>

⁷ <http://data.open.ac.uk>

⁸ <http://data.cnr.it>

educational resources, such as the mEducator – Linked Educational Resources⁹. While the very nature of the Linked Data approach thus clearly offers promising solutions that can potentially transform education, it is not yet adopted widely within the educational field.

As one of the outcomes of the previous editions of Linked Learning (proceedings available at <http://ceur-ws.org/Vol-717/> and <http://ceur-ws.org/Vol-840/>), the LinkedEducation.org platform¹⁰ was established, which has already gathered a considerable community and a significant amount of resources (e.g., relevant datasets and schemas). Building on these initiatives, the LinkedUp project¹³ is currently establishing a more structured approach towards gathering and cataloging data of educational relevance, for instance via the Linked Education data catalog¹¹ and the data.linkededucation.org environment¹².

Current efforts aim at providing a well-integrated, joint dataset and endpoint which interlinks educational Web data across the Web, and hence, provides a first step towards wider interoperability and take-up of educational Web data.

Building on the overwhelming success of Linked Learning 2011 and 2012, the Linked Learning 2013 workshop aims at providing a highly interactive forum for researchers and practitioners making for exploring the promises of the Web of Linked Data in the broad area of education by gathering researchers from the areas of the Semantic Web, Social Web, Technology Enhanced Learning (TEL), Open Educational Repositories, and Education.

The response to the call for papers was excellent for this third edition of LILE. Therefore, after extensive peer review (each submission was reviewed by at least three independent reviewers) we were able to select 7 papers for presentation in the program of the workshop. In addition, the workshop program also had an excellent keynote speaker – Sweitze Roffel, Elsevier.

The workshop would not be possible without contributions of many people and institutions. We are very thankful to the organizers of the WWW 2013 conference for providing us with an opportunity to organize the workshop, for their excellent collaboration, and for looking after many important logistic issues. We are also very grateful to the members of the program committee for their commitment in reviewing the papers and assuring the good quality of the workshop program. We also thank the authors for their invaluable contributions to the workshop by writing, revising and presenting their papers. Of course, great appreciation of his time and expertise goes to our keynote speaker Sweitze Roffel. We also want to express our strong gratitude to the EC-funded research project LinkedUp¹³ for sponsoring the workshop.

Stefan Dietze

*L3S Research Center
Hannover, Germany*

Mathieu d'Aquin

*The Open University
Milton Keynes, UK*

Dragan Gasevic

*Athabasca University,
Canada*

⁹ <http://linkededucation.org/meducator>

¹⁰ <http://linkededucation.org>

¹¹ <http://data.linkededucation.org/linkdup/catalog/>

¹² <http://data.linkededucation.org>

¹³ <http://linkdup-project.eu/>