LinkedUp - Linking Web Data for Education Project

Stefan Dietze[1], Eelco Herder[1], Hendrik Drachsler[2], Mathieu d'Aquin[3], Sander van der Waal[4], Elisabetta Parodi[5]

[1] L3S Research Center, Leibniz University, Hannover, Germany, {dietze, herder}@l3s.de

[2] Open Universiteit of the Netherlands, UK, Hendrik.Drachsler@ou.nl

[3] Knowledge Media Institute, The Open University, UK, mathieu.daquin@open.ac.uk

[4] Open Knowledge Foundation, UK, sander.vanderwaal@okfn.org

[5] eXact Learning Solutions, IT, e.parodi@exactls.com

Abstract. LinkedUp pushes forward the adoption of Linked Data within educational contexts. We provide an overview of the goals, activities and emerging results of the project. The latter include for instance a growing catalog of educational datasets as well as an open data challenge (LinkedUp Challenge) to identify and promote compelling applications of large-scale Web data.

Keywords. Linked Data, Education, Semantic Web

1   Introduction

The emerging Web of Data has produced a vast body of knowledge, containing data of explicit educational nature, as well as vast amounts of resources, for instance, from libraries, museums or encyclopedias, which are not explicitly targeted at educational purposes yet are increasingly being used in such contexts (see [2]). Building on earlier initiatives, such as *Linked Education*[1] or *Linked Universities*[2], the FP7 Support Action LinkedUp[3] pushes forward the exploitation and adoption of public, open data available on the Web, in particular by educational organisations. LinkedUp conducts activities, including the establishment of the *LinkedUp Challenge*[4] and a corresponding *evaluation framework*. The latter will provide a general framework for evaluating all aspects of open Web data-driven applications. These are aimed at identifying and promoting innovative success stories which exploit large-scale Web data in educational scenarios as part of robust applications and tools. Additional *dataset curation* activities are resulting in a repository and catalog of well-described and assessed datasets and will support participants of the challenge, as well as interested data consumers and application developers in general. In addition, suitable use cases are being collected by the LinkedUp consortium and associated organisations, including representatives of renowned industrial, academic and higher education institutions such as Elsevier, the BBC, or the Commonwealth of Learning.

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[1] http://linkededucation.org
[2] http://linkeduniversities.org
[3] http://linkedup-project.eu, kindly funded by the EC under FP7 Grant Agreement No 317620
[4] http://linkedup-challenge.org

2 Current Activities & Outcomes

While the project has just started in November 2012, outcomes emerge in the following areas:

- Quality-assured educationally relevant datasets (Linked Education data catalog[5] also introduced in [1], specific datasets such as the LAK Dataset[6])
- Open data competition (LinkedUp Challenge)
- A general-purpose evaluation framework for Web-data driven applications,
- Innovative applications of large-scale Web data management (for instance, first results identified through the LAK Data Challenge[7], or the LinkedUp use cases[8])
- Clustering crossing public and private sectors (for instance through LinkedUp activities at WWW2013, The Next Web Conference 2013 or LAK2013)

During the networking session and LinkedUp presence at ESWC2013, the above outcomes will be presented and showcased, aiming to, for instance, gather additional datasets for the data catalog or to encourage the participation in the challenge.

3 Conclusions

Being a support action, LinkedUp aims to facilitate and support research efforts of the communities relevant to its scope, i.e. research in Linked Data, Semantic Web and in particular their application in the area of education. As such, the project dedicates vast efforts to clustering and collaboration activities, for instance, by establishing the LinkedUp network[9], organising joint events and providing opportunities for researchers from different yet overlapping fields to come together and exchange experiences and knowledge. To this end, the ESWC project networking track will provide the opportunity to continue these efforts and connect LinkedUp and the current activities to the ESWC community.

References

[1] D'Aquin, M., Adamou, A., Dietze, S., Assessing the Educational Linked Data Landscape, ACM Web Science 2013 (WebSci2013), Paris, France, May 2013.

[2] Dietze, S., Sanchez-Alonso, S., Ebner, H., Yu, H., Giordano, D., Marenzi, I., Pereira Nunes, B. (2013) Interlinking educational Resources and the Web of Data – a Survey of Challenges and Approaches, Emerald Program: electronic Library and Information Systems, Volume 47, Issue 1 (2013).

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[5] http://datahub.io/group/linked-education & http://data.linkededucation.org/linkedup/catalog/

[6] http://www.solaresearch.org/resources/lak-dataset/

[7] http://www.solaresearch.org/events/lak/lak-data-challenge/

[8] http://linkedup-challenge.org/usecases.html

[9] http://linkedup-project.eu/associated-partners/