Editor's notes

The Making of Meta-Analysis through Metadata of the Data Documentation Initiative for Semantic Web

Welcome to the fourth issue of Volume 38 and the first issue of Volume 39 in this double-issue of the IASSIST Quarterly (IQ 38:4 & 39:1, 2014 & 2015). This special issue is guest edited by Joachim Wackerow of GESIS – Leibniz Institute for the Social Sciences in Germany and Mary Vardigan of ICPSR at the University of Michigan, USA. They have arranged, participated, herded other DDI experts, as well as produced in several workshops and conferences on the issues of the Data Documentation Initiative (DDI). This special issue on DDI addresses the semantic web. I have included the keyword 'meta-analysis' in the header for this DDI-issue as I believe that is where the combination of DDI and the semantic web is going to make one of its big impacts. I expect precise and detailed DDI metadata with strong applications will bring remarkable support for overview and accumulation of results from large amounts of datasets.

Thanks to the guest editors Joachim Wackerow and Mary Vardigan, this issue includes papers from numerous researchers involved in DDI development and use.

In the overview paper on semantic web applications (Thomas Bosch and Benjamin Zapilko) I came across a term like 'machine-understandable' - i.e., the machine (and software) is capable of understanding. In these days of the Turing-movie 'The Imitation Game' you could say that 'understanding' is a huge part of what the Turing-test investigates when looking into intelligence. However, I believe that we still must be content to stick with 'machine-actionable' – i.e., the machine is capable of taking special actions according to the rising conditions. I will frame the difference as the machine is capable of "if then do" while only humans so far are also capable of acting on "if then don't"!

The second paper (Thomas Bosch, Olof Olsson, Benjamin Zapilko, Arofan Gregory, and Joachim Wackerow) shows how the DDI has in twenty years developed into the support of the complete data lifecycle. In several figures the concepts are overviewed graphically and the use cases illustrate several scenarios of support.

Use cases are also at the center of the paper, including the ontology of the DDI (Thomas Bosch and Brigitte Mathiak) and here less database bound graphics are showing representations of the DDI conceptual model with a focus on the Linked Open Data Cloud and the Web of Data. This paper also exemplifies the query language SPARQL.

The Linked Open Data Cloud is continued in the paper on linking study descriptions (Johann Schaible, Benjamin Zapilko, Thomas Bosch, and Wolfgang Zenk-Möltgen) describing how study descriptions can be enriched with datasets from the Linked Open Data Cloud. The trick is to automatically detect that items within different sources can be successfully linked as they carry the same property. The last paper introduces the reader to XKOS, the eXtended Knowledge Organization System (Franck

Cotton, Daniel W. Gillman, Yves Jaques). The paper gives some examples of statistical classification and includes data harmonization. This paper applies the term 'machine-understandable' once again. Semantics is about meaning and meaning is understanding. I still don't think that the Turing-test has been passed - although I might have paid insufficient attention – but the DDI and Semantic Web is going in a promising direction.

Articles for the IASSIST Quarterly are always very welcome. They can be papers from IASSIST conferences or other conferences and workshops, from local presentations or papers especially written for the IQ. When you are preparing a presentation, give a thought to turning your one-time presentation into a lasting contribution to continuing development. As an author you are permitted 'deep links' where you link directly to your paper published in the IQ. Chairing a conference session with the purpose of aggregating and integrating papers for a special issue IQ is also much appreciated as the information reaches many more people than the session participants, and will be readily available on the IASSIST website at *http://www. iassistdata.org*.

Authors are very welcome to take a look at the instructions and layout:
http://iassistdata.org/iq/instructions-authors

Authors can also contact me via e-mail: *kbr@sam.sdu.dk*. Should you be interested in compiling a special issue for the IQ as guest editor(s) I will also be delighted to hear from you.

Karsten Boye Rasmussen
July 2015
Editor

Guest Editor's notes

DDI and Semantic Web

This issue focuses on the ways in which DDI can play an important role in the Linked Open Data environment and recent accomplishments that move this idea forward into reality.

The first paper, "Semantic Web Applications for the Social Sciences," presents an overview of several representative applications that use Semantic Web technologies, highlighting social science applications and their benefits for the domain.

The second paper, "DDI-RDF Disco – A Discovery Model for Microdata," describes a data discovery ontology based on DDI that enables users to publish their DDI data and metadata in RDF and link them with many other datasets from the Linked Open Data (LOD) cloud.

The third paper, "Use Cases Related to an Ontology of the Data Documentation Initiative," provides additional detail related to the data discovery ontology Disco, offering several use cases to show its value in the world of Linked Open Data.

The fourth paper, "Linking Study Descriptions to the Linked Open Data Cloud," presents ways to enrich a study description with various datasets from the LOD cloud by exposing selected elements of the study description in RDF.

And finally, the fifth paper, "XKOS - An RDF Vocabulary for Describing Statistical Classifications," offers a brief description of the eXtended Knowledge Organization System (XKOS), an extension of SKOS, and a rationale for why it was developed, showing how the semantics of classification systems in the authors' own offices are represented more faithfully by extending SKOS with XKOS.

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