2nd Special Issue on Linked Dataset Descriptions

Editorial

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Abstract. The Linked Dataset special issue gathers descriptions of mature and useful datasets thereby awarding researchers and practitioners who create and maintain those datasets with academic recognition. In this editorial, we briefly summarise the contributions to the 2nd special issue on Linked Dataset Descriptions at the Semantic Web Journal.

Keywords: RDF, Linked Data

In 2012, the Semantic Web journal released the first call for Linked Dataset description papers\textsuperscript{1}. As a result of this call, a special issue with 15 Linked Dataset description papers was published [1]. More importantly, the response was so well received by the Semantic Web community that dataset descriptions were considered since then as a new standing paper type for the journal\textsuperscript{2}.

Despite the amount of high-quality work usually required to publish high-impact Linked Datasets, authors were finding it difficult to get appropriate academic credit for such work, and those using the datasets were usually not able to cite them appropriately. Hence, Linked Dataset description papers provide a publication outlet for these contributions, making them more visible to a broader research community, archiving them as notable contributions to development of the Semantic Web, and allowing for peer-review based quality control with a transparent set of review criteria.

In this second special issue\textsuperscript{3} we have accepted 7 papers for publication. Together with the papers accepted for the first special issue plus other papers that have been accepted regularly, there are now approximately 30 Linked Dataset description papers accepted in the journal, which suggests that the decision on allowing this type of work to be published was well-received in the community.

These papers are evaluated according to a different set of criteria than the ones used for other types of papers. This includes an analysis of the quality and maturity of the dataset, of its current or potential usefulness, and of the clarity and completeness of the descriptions provided in the paper. Particular emphasis was put during the evaluation on making sure that sustainability strategies for the dataset are provided, in particular to handle future updates as well as hosting of the dataset.

The accepted papers cover several domain areas: statistical data, bibliographic data, urban data,
energy and building data, biomedical institution
data, protein data and Open Government Data.
This shows that Linked Data principles can be
applied to a wide range of domains. The sizes of
datasets are mostly in the range of several million
triples by the time of publishing the papers, al-
though there are a few smaller datasets that have
been selected for their novelty in their respective
domains. Furthermore, licenses vary as well, with
Creative Commons Attribution being the most
used one. In all cases they are open data licenses.
- Linked SDMX Data: 600M triples; CC0 1.0
- AGRIS: 130M triples; mixed licenses
- Urbanopoly: 280K triples; Open Data Com-
  mions Open Database License (ODbL)
- RÉPENER: 150K triples; CC BY 3.0
- eagle-i: 1.3M triples; CC BY 3.0
- nextProt: 97M triples; CC BY-SA 3.0
- Public Spending: 63M triples; CC BY 3.0

We will now briefly summarise the articles which
appeared in this special issue.

Linked SDMX Data by Capadisli et. al describes
an ongoing effort to automate the transformation
of statistical data from several international organ-
isations (e.g. OECD, ECB, FAO, IMF) into Linked
Data according to the W3C RDF Data Cube. This
transformation work may be applied to any or-
ganisation that provides their data according to
SDMX, and in fact the work has continued also
with other datasets that were not originally de-
scribed in this paper.

Migrating Bibliographic Datasets to the Seman-
tic Web: the AGRIS case by Anibaldi et. al describes
the dataset resulting from the transforma-
tion of a more than 5 million bibliographic refer-
ences collected over several years by the Food and
Agriculture Organisation of the United Nations
(FAO). It was originally modeled using a qualified
Dublin Core metadata format.

Geospatial Dataset Curation through a Location-
based Game by Celino describes the datasets that
result from a data curation campaign on avail-
able geospatial open datasets like OpenStreetMap,
conducted through a location-based Game with a
Purpose inspired by the monopoly board game.

The RÉPENER Linked Dataset by Sicilia de-
scribes a dataset that contains integrated informa-
tion of the Spanish territory regarding energy cer-
tification, building monitoring, and geographical
data.

eagle-i: biomedical research resource datasets by
Torniai describes a set of linked datasets that
result from the transformation of biomedical re-
sources available at 25 institutions. The datasets
cover various areas of interest to these institutions,
such as biological specimens, documents, human
studies, instruments, organisms, reagents, research
funding opportunities, etc.

Converting neXtProt into Linked Data and
nanopublications by Chichester et. al describes
how the RDF/XML annotations specific to neXtProt,
a comprehensive knowledgebase on human pro-
teins, have been dealt with according to the nanop-
ublication model, so as to give appropriate attri-
bution and provenance to all data.

Public spending as LOD: the case of Greece by
Vafopoulos et. al describes a dataset that results
from the generation, curation, interlinking and
publishing of daily updated economic data on pub-
lic expenditure, which is gathered by the Greek
Transparency Initiative.

The past decade has provided evidence that the
actual availability of structured data can fuel ad-
vances in research by providing a testbed for new
algorithms and technology. In this spirit further
Linked Dataset special issues in the Semantic Web
Journal are planned and will continue to positively
influence Semantic Web research.

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References

[1] P. Hitzler and K. Janowicz. Linked data, big data, and