

Cataloguing Open Data Applications using Semantic Web Technologies

Anastasia Dimou¹, Pieter Colpaert¹, Raphaël Troncy²,
Erik Mannens¹, and Rik Van de Walle¹

¹ iMinds - UGent - MMLab

² EURECOM

{Anastasia.Dimou, Pieter.Colpaert, Erik.Mannens, Rik.Vandewalle}@ugent.be
Raphael.Troncy@eurecom.fr

Abstract. Apps4EU is a EU support action project that puts the focus on the establishment of a semantic web based aggregation mechanism for (Linked) Open Data applications in order to better identify and reference the various *application concepts* for Open Data and promote their reuse. In this paper, we present our approach that aims to ease the production of semantic metadata that describes the different Apps for X contests.

Keywords: Open Data, Linked Open Data, Apps Competition

1 Project Description

The “Apps for Europe - turning Data into Business” (Apps4EU) project³ aims to develop a new transferable programme to increase the business knowledge and potential for participants in Open Data competitions. Local, national and pan-European competitions are organized in order to stimulate the winners to turn their inventions into viable businesses with market potential. The project’s goal is to maximise the socio-economic impact and overall benefits of open data and contribute to the European commission’s open data policy.

2 Harvesting Open Data Applications

One of the challenges, yet to be tackled in the European Open Data Ecosystem, is that reuse and co-creation competitions do not follow the fundamental principles of (Linked) Open Data (LOD) regarding broad availability, reusability and universal participation⁴: *app concepts* are not being reused across silos⁵. Not doing so leads to a lot of low quality applications which lack the opportunity to cause major impact. Data consumers would clearly benefit from having a better

³ <http://apps4europe.eu/>

⁴ <http://opendatahandbook.org>

⁵ The silo, in this case, can be a government for which the app contest is organised, a region, a field of interest or even a private company.

overview of the various applications made elsewhere and which they can reuse and extend open software. Investors are looking for such overview in order to take better informed decisions regarding which *app concept* and which particular team or project is worth to be funded. Some open data portals⁶ do promote some featured applications, but those application are not described and indexed with the same breadth that their catalogs of datasets.

In the Apps4EU project, we will propose new vocabularies to describe Apps for X events. Furthermore, we will propose a vocabulary describing the different *app concepts*, in the same way that DCAT⁷ describes datasets: this vocabulary includes properties that describe the datasets used, their formats and access methods, the criteria used for judging the applications, the app contest it was part of, etc. Our objective is that all the Apps for X contests in Europe use the same vocabulary in order to enable automatic aggregation and indexing of those descriptions. This triplestore will feed a pan European Apps for Europe site enabling to scroll through all the concepts submitted to any Apps for X event. To minimise the administrative burden for app contest organisers, we will develop a Drupal and a Wordpress plug-ins that will support an organiser in the automatic description of the contest he is organizing.

3 Opportunities for further development

Through this networking event, we will explore the opportunities to extend the Apps4EU's simplified aggregation mechanism, broaden its scope and further formalize it as a publishing - aggregation model for the LOD applications developed using semantically annotated content, e.g. by representing the *app concepts* conceived in the frame of LinkedUp challenges⁸. Furthermore, it is expected to bring into discussion if and how Semantic Web technologies could enable the potential of serendipitous reuse of *app concepts* and envisage them as components/applications that expose a certain functionality in conjunction with thematically relevant open data. In the scope of Linked Open Data, *app concepts* interlinked to corresponding datasets should allow end-users to transfer their application to another region or domain. For example, an application aiming at finding the nearest Drugstores in Ghent should be easily deployed elsewhere by reusing similar drugstore and geographical datasets from another city. Finally, as opening the data is a determinant factor for the LOD movement, bringing together the open data and Semantic Web communities would help in revealing common needs, exchanging ideas and exploring opportunities for collaborations.

⁶ <http://publicdata.eu>, <http://data.gov.uk/apps>, etc.

⁷ Data Catalog vocabulary: <http://www.w3.org/TR/vocab-dcat/>

⁸ <http://linkedup-challenge.org/>