

DaPaaS – A Data- and Platform-as-a-Service Approach to Efficient Open Data Publication and Consumption

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Abstract. DaPaaS (a Data- and Platform-as-a-Service Approach to Efficient Open Data Publication and Consumption) is an FP7 funded project which aims to simplify data publication for organizations with limited expertise in data publication, and to reduce the costs incurred in the data publication process. At the same time, DaPaaS targets the creation of an ecosystem for development and deployment of third party data-driven applications.

Keywords: open data, linked data, data-as-a-service, platform-as-a-service, mobile applications

1 Introduction

While in recent years a large number of datasets has been published as open (and often linked) data, applications utilizing these open and distributed data have been rather few. Reasons include, amongst others, the technical complexity and cost of publishing and providing access to the data, lack of monetization incentives on the provider side, and lack of simplified and unified solutions for data consumption in a multi-platform way.

The DaPaaS¹ approach directly addresses these challenges by developing a software infrastructure combining Data-as-a-Service (DaaS) and Platform-as-a-Service

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(PaaS) for open data, with the aim of optimizing publication of Open Data and development of data applications (**Fig. 1**).

Addressing the data consumption aspect by developing novel cross-platform interfaces to data applications, DaPaaS extensively covers the life cycle of cost-efficient data publishing and consumption. Backed by the development of a methodology for data use in the DaPaaS infrastructure, DaPaaS promises to deliver an intuitive platform that simplifies data publication, as well as cross-platform data consumption, thus enabling a sustainable infrastructure for efficient and simplified reuse of open data.

Core innovations include: an open DaaS and PaaS, unified Linked Data access, integrated DaaS and PaaS for open data, lowering the complexity of open data publishing and consumption for non-experts.

Fig. 1. High-level architecture of the DaPaaS platform

