Linked Data-driven Web Components

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ABSTRACT
This paper provides a ...

1. INTRODUCTION
The

The remainder of this article...

2. RELATED WORK
Web Components and the Semantic Web [1]

3. WEB COMPONENTS
Web Components are a set of W3C standards that enable the creation of reusable widgets or components in Web documents and Web applications. Web components aim to bring *Component-Based Software Development* (CBSD) to the World Wide Web. Some advantages of CBSD approach are reusibility, replacability, extensibility, encapsulation and independence.

4. LINKED DATA-DRIVEN WEB COMPONENTS
Definition

We define a *Linked Data-driven* (LD-R) Web Component as a Web component which employs RDF data model for representing its content and specification (i.e. metadata about the component).

4.1 Features
Linked Data-driven Web components provide the following features:

- *Fine-grained Web applications.* RDF provides a common data model that allows data-driven components to be shared and integrated in a structured way across different applications.

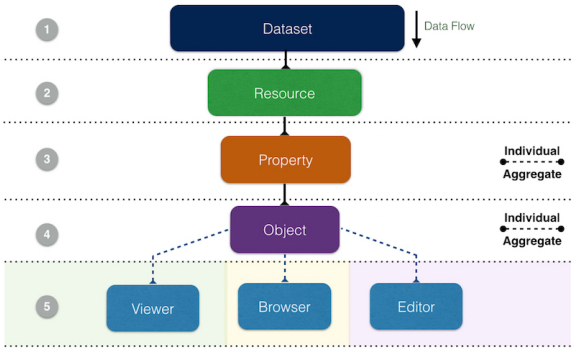

Figure 1: Architecture of LD-R Applications.

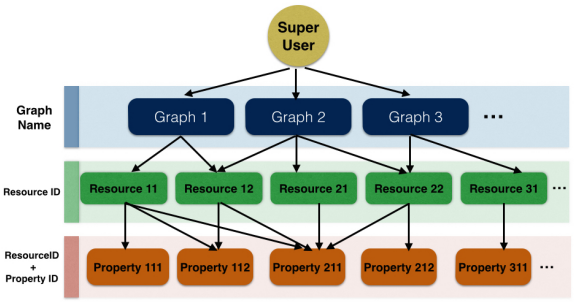

Figure 2: User Access Levels

Figure 1 depicts different component levels when developing Linked Data-driven Web applications.

- component architecture

- access control

Customization and Personalization

- scopes

Better content visibility reusability

- RDFa, Microdata

Better component visibility, reusability and assembly

4.2 Life Cycle
5. IMPLEMENTATION

Figure 3: Scopes

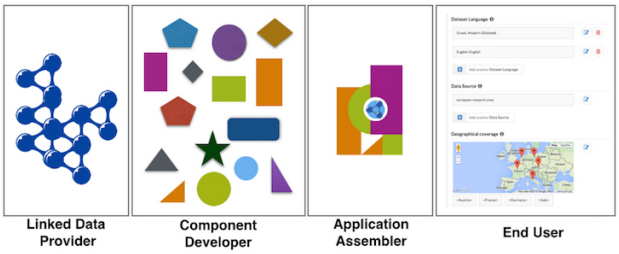

Figure 4: Life-cycle

http://ld-r.org

6. EVALUATION

RISIS

OpenPhacts

7. CONCLUSION AND FUTURE WORK

8. AKNOWLEDGEMENT

We would like to thank our colleagues from the KRR research group at VU University Amsterdam for their helpful comments during the development of the LD-R framework. This work was supported by a grant from the European UnionâĂŹs 7th Framework Programme provided for the project RISIS (GA no. 313082).

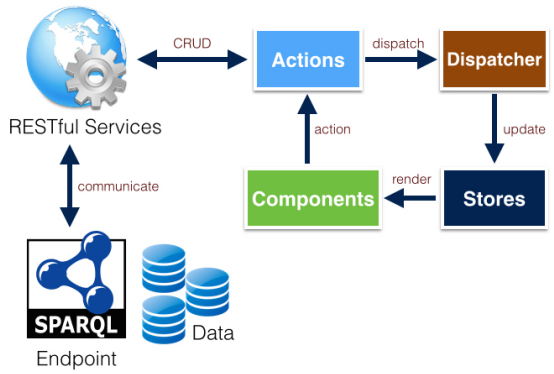

Figure 5: Data Flow

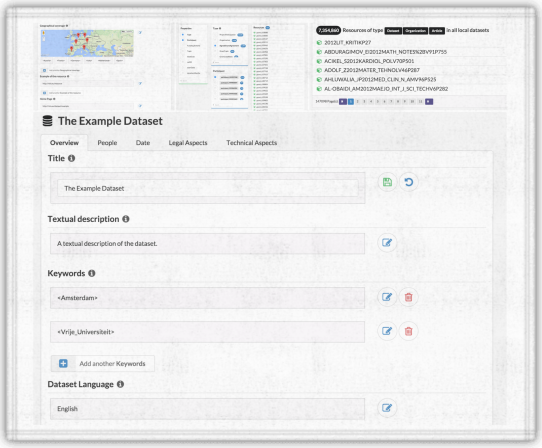

Figure 6: Screenshot

9. REFERENCES

[1] M. Casey and C. Pahl. Web components and the semantic web. *Electr. Notes Theor. Comput. Sci.*, 82(5):156–163, 2003.