opengovintelligence

OpenGovIntelligence

Fostering Innovation and Creativity in Europe through Public Administration Modernization towards Supplying and Exploiting Linked Open Statistical Data

Deliverable 3.1

OpenGovIntelligence ICT tools - first release

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Abstract:	This deliverable list the prototypes of software components delivered as a result of the first development stage of OpenGovIntelligence project.

Keyword List:	software, components, linked data, statistical data, ICT tools

Consortium

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1.	Coordinator	Centre for Research & Technology - Hellas	CERTH	Greece
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Version	Date	Revised by	Reason
0.1	30/08/2016	NUIG	First draft
0.2	25/10/2016	NUIG	Updated structure
0.3	26/10/2016	NUIG	General updates
0.4	27/10/2016	NUIG	Submission version
1.0	31/10/2016	CERTH	Submission to EC

Statement of originality:

This deliverable contains original unpublished work except where clearly indicated otherwise. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation or both.

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List of Abbreviations

The following table presents the acronyms used in the deliverable in alphabetical order.

Abbreviation	Description
API	Application Programming Interface
CSV	Comma Separated Values
ICT	Information and Communication Technologies
LOSD	Linked Open Statistical Data
OLAP	OnLine Analytical Processing
RDF	Resource Description Framework
UI	User Interface
URI	Uniform Resource Identifier
WP	Work Package

Executive Summary

This document lists the components delivered as the result of the first OpenGovIntelligence development stage and provides links to access them. Based on the primary capabilities, the tools can be grouped in three categories:

(a) the creation of Linked Open Statistical Data (LOSD) from various sources,

(b) the expansion of LOSD with datasets from existing sources,

(c) the exploitation of LOSD for the co-production of public services.

The conceptual framework for public service co-creation driven by the exploitation of linked open statistical data is described in D2.1 "OpenGovIntelligence framework – first release" while the descriptions of the components are provided in the deliverable D3.2 "Report on OpenGovIntelligence ICT tools - first release".

OpenGovIntelligence ICT tools is a suite of both open source and commercial tools.

1 List of Software Components

Below we list the tools, which were provided during the first development stage as well as links by which they can be accessed. In general, tools developed during the project lifecycle can be accessed at the GitHub repository available at: http://github.com/OpenGovIntelligence

1.1 JSON API for Data Cube specification

This specification of a JSON API for accessing data stored as RDF Data Cube, in a way that would be easy for typical web developers to use - people with moderate JavaScript skills, but no knowledge of Linked Data. This is a first version of the specification and it will be reviewed and improved during the second year of the project.

Available at: https://github.com/OpenGovIntelligence/json-qb

1.2 JSON API for Data Cube implementation

This component is the implementation of the JSON QB specification provided by OpenGovIntelligence project. It aims to provide an easy to use API for web developers that use statistical data stored in the form of RDF Data cubes. The API implementation can be installed on top of any RDF repository and offer basic and advanced operations on RDF Data cubes.

Available at: https://github.com/OpenGovIntelligence/json-qb-api-implementation

1.3 Table2qb and Grafter

The Table2qb tool, implemented with Grafter, takes data in a specific tabular structure, either as a CSV or Excel file, and converts it into an RDF Data Cube: representing the data as a series of observations with dimensions, attributes and measures, and generating the associated Data Structure Definition.

Availability

Grafter can be obtained from https://github.com/Swirrl/grafter

Table2qb can be obtained from https://github.com/OpenGovIntelligence/table2qb

1.4   Data Cube Builder

Data Cube Builder is a tool for transforming non-RDF data sources to RDF Data Cube. It is built on top of TARQL[1]. Data Cube Builder can be used through multiple interfaces such as desktop UI, command line, web user interface and as a web service.

Available at: https://github.com/OpenGovIntelligence/data-cube-builder

1.5   Data Cube Explorer

Data Cube Explorer is a web-based tool that catalogues and presents details of available data cubes to the users, it also enables user to preview cube data using pivot table, cube browser and other visualisation widgets.

Available at: https://github.com/OpenGovIntelligence/data-cube-explorer

1.6   OLAP Browser

The OLAP Browser enables the exploration of RDF data cubes by presenting each time a two-dimensional slice of the cube as a table.

Available at: https://github.com/OpenGovIntelligence/qb-olap-browser

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[1] http://tarql.github.io/

2 Conclusion

This deliverable lists the components delivered in the first phase (month 9) of OpenGovIntelligence project. The detailed descriptions of the components (developed and to be developed) are provided in the deliverable D3.2 "Report on OpenGovIntelligence ICT tools - first release".

This deliverable will be updated together with the ongoing dvelopment of the OpenGovIntelligence tools. The next official release is planned at month 24 (version 2), with a further release in month 36 of the project (final version).