
Deliverable 2.3.3

Final Real-world Community Engagement Report

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Executive summary

In this deliverable we provide a final report on participating in real-world events throughout the 2nd year of the EUCLID project. In particular we give details on the various community engagement activities such as participation in meet-ups, training events at conferences and for commercial organisations, participation in summer schools, as well as further educational opportunities.

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Abstract (for dissemination)	<p>Alongside with producing a comprehensive curriculum and high-quality training materials, EUCLID aims to actively engage with the Linked Data and data community. This is important in order to be able to actively disseminate the results and make them available to a wide audience. Furthermore, this enables the fathering of feedback, which is a crucial step for improving both the structure of the educational curriculum, as well as the content of the materials.</p> <p>In this deliverable we provide a final report on the delivery and feedback from both participating in real-world (face-to-face) events and presenting the current progress of the project within the 2nd year of the project</p>
Keywords	Community engagement, dissemination, training

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Abbreviations

DL – Distance Learning

DoW – Description of Work

EU – European Union

ESWC - European/Extended Semantic Web Conference

ISWC - International Semantic Web Conference

IT – Information Technology

KR – Knowledge Representation

LD - Linked Data

LOD – Lined Open Data

SemTech - Semantic Technology (& Business) Conference

SPARQL – SPARQL Protocol and RDF Query Language

WP – Work Package

WWW - World Wide Web (Conference)

1 Introduction

The EUCLID project has delivered high-quality educational curriculum for Linked Data, which is available via various online channels. In addition to that, the project was actively participating throughout its 2nd year in activities to actively engage with the Linked Data and Semantic Web community, so that the proper dissemination of the training materials is easily available to the target groups which will benefit from it.

Deliverable 2.3.2 provided a summary of the community engagement activities throughout the 1st year of the project and in this deliverable we provide the final report on participating in various real-world events engaging the Linked Data community during the last twelve months of the project.

As planned, we have successfully targeted a wide spectrum of events: from informal meetups and expert meetings, to conference tutorials & summer schools, as well professional training events for big companies in Europe.

2 Events for Real-World Community Engagement

In this section we provide a summary of the numerous events that EUCLID members attended or organised during the second year of the project, in order to actively engage with the Linked Data community. This was a high-priority activity for the consortium during the second half of the project, because it provides an opportunity to receive valuable feedback regarding the quality of our work and to reach a wider audience for the project results.

We cover various events targeted towards addressing university students and novice users, experienced Linked Data practitioners, as well as information architecture experts from big companies.

2.1 Education and Training Events

Throughout the 2nd year of the project, we continued to actively engage the community via educational and training events. These types of events provide a good opportunity to receive feedback and suggestions for improvements of the training content created by EUCLID, as well as an efficient dissemination channel so that the project results can reach a wider audience.

2.1.1 Conference Tutorials

During the 2nd year of the project we continued to target the major conferences relevant for the Linked Data and Semantic Web community, in particular: academic conferences such as the World Wide Web conference (WWW), the International Semantic Web Conference (ISWC) and the European Semantic Web Conference (ESWC), as well as business oriented conferences such as Semantic Technology and Business Conference (SemTech) and Semantic Days.

Up-to-date we have successfully delivered EUCLID based presentations and training sessions at the following conferences:

- **Semantic Technology and Business Conference (SemTechBiz) 2013¹**, June 2-5, San Francisco, USA
 - Relational Database to RDF (RDB2RDF): The R2RML and Direct Mapping Standards²
 - Content³: the tutorial provided an introductory hands-on session, with the following structure: 1. an overview of the W3C Direct Mapping and R2RML standards; 2. Summary of case studies of RDBMS in Semantic Web systems; 3. two practical demonstration scenarios (dynamic querying and ETL) for providing SPARQL capabilities over real-world data. 4. An introductory hands-on experience with RDB2RDF tools
 - The presentation was based on the EUCLID Module 3: Providing Linked Data. The target group was newcomers to these technologies: developers, IT managers, and other practitioners who are interested in the recent advances related to relational-to-RDF data mapping approaches.
- As already mentioned in D2.3.2, we have successfully delivered a tutorial on “Online Learning and Linked Data” at the **World Wide Web Conference (WWW) 2013⁴**, 14 May, Rio de Janeiro, Brazil.
 - Online Learning and Linked Data
 - Content:
 - Part I: New online learning methods for teaching Linked Data

1. Introduction

¹ <http://semtechbizsf2013.semanticweb.com/>

² <http://semtechbizsf2013.semanticweb.com/sessionPop.cfm?confid=70&proposalid=5201>

³ <http://www.euclid-project.eu/content/mapping-relational-databases-linked-data>

⁴ <http://www2013.org/2013/02/26/accepted-tutorials/>

2. How new online learning methods can be used to support the teaching of Linked Data
 3. Group activity: Evaluation of a selection of Linked Data learning resources.
 4. Plenary discussion on the outcomes of the first group activity.
- Part II: Supporting online learning with Linked Data
 1. How Linked Data technologies can be used to publish online education resources
 2. The Linked Education Cloud
 3. Using the Linked Education Cloud for educational services
 4. The future of linked learning (group discussion)
- Another tutorial which was described in D2.3.2 but delivered after M12 was the full day “RDB2RDF Tutorial” at the **Extended Semantic Web Conference (ESWC) 2013**⁵, 26-30 May in Montpellier
 - The new R2RML and Direct Mapping Standards, from Semantics to Practice
 - Content: This tutorial will introduce participants to RDB2RDF. We will start out with the historical context and then present an overview of the new W3C RDB2RDF standards: Direct Mapping and R2RML and how they complement each other. We will continue to present recent scientific results and then present an overview of different RDB2RDF tools, such as D2R, Karma, SparqlMap and Ultrawrap. In the afternoon, we will share several case studies of integrating relational databases in semantic systems. We will present the MusicBrainz’s case study, where RDB2RDF tools have been evaluated in order to ETL relational data to RDF and load it into OWLIM. Additionally, we will present the case study of rCAD, an RNA database that has been mapped to the Gene Ontology and RNA Ontology in order to support semantic search.
 - A half-day tutorial “Interacting with Linked Data – a tutorial with OWLIM and the Information Workbench”⁶ at the **Semantic Days Conference 2013**⁷, 28-30 May, Stavanger, Norway
 - Content⁸: in this tutorial we provided an introduction to key Semantic Technologies and practically illustrated the means to manage and build applications with Linked Data. We introduced the data model, inference, and the query approach of the Linked Data stack using Linked Open Data with practical examples. Furthermore, the tutorial provided a brief overview of current visualization tools and techniques, and applications for presenting Linked Data to the end user. We also described existing search options, including faceted search, concept-based search and hybrid search, based on a mix of using semantic information and text processing.
 - We demonstrated the use of the OWLIM RDF database for Linked Data management together with the Information Workbench to demonstrate how real-world applications utilising faceted and hybrid search can be built and how Linked Data can be synthesized and processed in Business Intelligence-based scenarios.
 - The tutorial was based on EUCLID Modules 2 (Querying Linked Data) and 4 (Interacting with Linked Data)
 - A half-day tutorial on “Online Learning and Linked Data – Lessons Learned and Best Practices”⁹ at the recent **World Wide Web Conference (WWW) 2014**¹⁰, 7 April, Seoul, Korea.
 - Content:

⁵ <http://www.rdb2rdf.org/eswc2013-tutorial/index.html>

⁶ <https://www.posccaesar.org/wiki/PCA/SemanticDays2013/Tutorials#OWLIM>

⁷ <https://www.posccaesar.org/wiki/PCA/SemanticDays2013>

⁸ <https://www.posccaesar.org/svn/pub/SemanticDays/2013/Presentations/DAY%201/Parallell%203/>

⁹ <http://www.euclid-project.eu/events/online-learning-and-linked-data-www2014>

¹⁰ <http://www2014.wwwconference.org/>

- Part I: Using Linked Data for Learning & Education
- Part II: The LinkedUp catalog, dataset explorer, applications
- Part III: Development of a Linked Data curriculum
- Part IV: Delivering Linked Data training to data science practitioners
- Part V: Evaluation of a EUCLID online course (practical session)



Figure 1 EUCLID at WWW'2014, Seoul



Figure 2 EUCLID at WWW'2014, Seoul



Figure 3 EUCLID at WWW'2014, Seoul

2.1.2 Summer Schools

D2.3.2 already summarised the plans of EUCLID for involvement in the **3rd ESWC Summer School**¹¹.

The event took place during the 1st week of September 2013 in Crete, Greece. EUCLID members contributed to the following training sessions¹² during the event:

- Introduction to Linked Data: background technologies and standards, motivating application scenario (based on Module 1)
- Querying Linked Data (based on Module 2)
- Semantic Web languages and standards (based on Module 2)
- Providing Linked Data, parts I and II (based on Module 3)
- Hands-on session: Publishing & Consuming Linked Data (based on Module 4)
- Building & Using Ontologies, parts I and II

Additionally, a special feedback session was organised on September 5th so that the summer school participants could evaluate the quality of the EUCLID training materials.



Figure 4 ESWC Summer School 2013

The ESWC summer schools provided a unique opportunity for EUCLID members to interact with MSc and Ph.D. students and junior researchers who will become the next wave of Semantic Web and Linked Data practitioners. The feedback¹³ received was very positive and demonstrates the impact that such training events have on young researchers:

- Ruben Verborgh (Belgium): *“Looking back after two years, I can say that the ESWC summer school has been **the most influential event in my research career so far**. You get to know many people at once, giving your network a serious boost: you’ll never walk alone at any Semantic Web conference. [...]”*
- Amrapali Zaveri Gokhale (India/Germany): *“Don’t be fooled by the nice pictures of the beach and the pool, they make you work for it ;) Seriously though, it was quite an intensive week, but well worth both the effort and money. Attending the summer school not only **gave me the opportunity to meet different tutors and students from several different institutions and countries but also helped me gain insight into what’s “hot” in the field**. The **hands-on tutorial sessions were extremely helpful** as were the student projects. These sessions helped*

¹¹ <http://summerschool2013.eswc-conferences.org/>

¹² <http://summerschool2013.eswc-conferences.org/about/programme/>

¹³ <http://summerschool2013.eswc-conferences.org/about/testimonials/>

build team, communication as well as technical skills. [...]

- Okan Bursa (Turkey): *“I knew that my knowledge about the Semantic Web was not the best and I didn't know the community, but I knew as well that I would be able to make new social contacts easily and **learn something interesting**. This was my motivation to go to the ESWC 2011 Summer School and indeed they had fascinating speakers. [...] **Instructors are very helpful and friendly** and organization was exceptionally well coordinated. [...]*”
- Anisa Rula (Albania/Italy): *“From start to finish, my experience at the ESWC summer school 2011 was utterly special. I knew from the beginning that this was the right summer school to apply for. Indeed, as a young PhD student I had the **opportunity to enrich my theoretical background with practical parts during the hand-on sessions**. It was a **great experience for my research** because I attended **lectures from well-known researchers in this field** and learnt how to use and build Semantic Web applications. [...]*”
- Ke Tao (China/Netherlands): *“Only reading a couple of existing standards or a textbook might make you doubtful about Semantic Web, either its future or the possibilities of monetization. However, the experience at the ESWC summer school, where I heard **lectures from tutors who energetically apply latest developments in their research**, gave me a brand new understanding and inspired me. [...]*”



Figure 5 EUCLID at ESWC Summer School 2013



Figure 6 EUCLID at ESWC Summer School 2013

The EUCLID training materials will be an important part of the **4th ESWC Summer School¹⁴** in September 2014 as well, with EUCLID members leading the training sessions on:

- Semantic Web introduction,
- Linked Data fundamentals,
- Semantic Web languages,
- Ontology design
- publishing & consuming Linked Data,
- Building Linked Data applications

¹⁴ <http://summerschool2014.eswc-conferences.org/programme/>



Figure 7 ESWC Summer School 2014

2.1.3 Educational Events

EUCLID materials can be also effectively integrated as part of existing university courses. In addition to conference events, university activities and lectures can be used to promote the EUCLID by frequent reference during the training, and students will be encouraged to read beyond the material delivered in a classroom situation. Furthermore, the students will be encouraged to engage with the webinar content produced by the project, as this can serve to gain further related knowledge.

Currently EUCLID materials are being reused in the following educational courses:

- **Semantic Web Technologies II** lecture during the Summer Semester 2013 at KIT
 - Modules 1, 2 and 4 will be reused as part of the lectures, including their corresponding exercises.
- **Service Oriented Computing II** lecture during the Summer Semester 2013 at KIT
 - Modules 1 and 5 will be reused as part of the lectures, including their corresponding exercises.
- **Semantic Web Technologies II** lecture during the Summer Semester 2014 at KIT
 - Modules 1, 2 and 4 will be reused as part of the lectures, including their corresponding exercises.
- **Service Oriented Computing II** lecture during the Summer Semester 2014 at KIT
 - Modules 1 and 5 will be reused as part of the lectures, including their corresponding exercises.
- **KSRI Summer School 2013**¹⁵ as part of the tutorial on Semantics and Services¹⁶ (23.09.2013)
 - Modules 1 and 5 have been reused as part of the tutorial.
- **Hector School of Engineering and Management**¹⁷ as part of the three-day module on Engineering Module 3: Digital Services (4-6.11.2013)
 - Modules 1, 2, 3 and 5 have been reused as part of the lectures.
- Integration in teaching at the Open University
 - <http://events.kmi.open.ac.uk/eswc-ss2013/learning-materials/>

We will continue to look for possibilities to integrate EUCLID materials in actual educational courses.

¹⁵ <http://service-summer.ksri.kit.edu/program.php>

¹⁶ <http://service-summer.ksri.kit.edu/106.php>

¹⁷ <http://hector.idschools.kit.edu>

2.1.4 Professional Training Events

One of the partners in the consortium (Ontotext) has strong expertise in professional training¹⁸ related to Semantic Technologies and Linked Data for the enterprises.

Throughout the 2nd year of the project, Ontotext has held professional training events for various big companies in the Media & Publishing domain in Europe and the USA¹⁹:

- BBC
- British Museum
- UK parliament
- One of the world's leading financial news organisations (UK)
- One of the leading monthly magazines focussed on business & finance (UK)
- A global academic publishing company (USA)
- One of the biggest & most visited museums in the USA

Ontotext has already partially integrating a subset of the EUCLID teaching materials within this professional training course. In particular, the following modules from Ontotext's training curriculum have already been enhanced and extended with EUCLID based content:

- RDF, RDF Schema Vocabulary (RDFS) and OWL
- Automated Reasoning and Ontologies
- Introduction to SPARQL
- Representing your data in RDF
- Publishing & consuming Linked Data

2.2 Dissemination Events

EUCLID members participated in the **Future Internet Assembly**²⁰ (FIA) in 2014. John Domingue from OU chaired a session "Beyond MOOCs: The Future of Learning on the Future Internet"²¹.

The session was well attended. Speakers in this session outlined a number of new and emerging learning paradigms based on innovative uses of the Internet and also how large-scale infrastructures could support the new requirements generated.

EUCLID will also be presented at the incoming **Extended Semantic Web Conference**²² (ESWC) 2014 during the EU Project Networking event²³. EUCLID members will use this opportunity to provide dissemination and encourage ongoing EC funded projects to reuse and benefit from the Linked Data educational curriculum created by the project.

¹⁸ <https://confluence.ontotext.com/display/training/Course+Agenda>

¹⁹ Note that Non-Disclosure Agreements restrict Ontotext from providing details about some of its customers of professional training services

²⁰ <https://www.fi-athens.eu/>

²¹ <https://www.fi-athens.eu/program/sessions/beyond-moocs-future-learning-future-internet>

²² <http://2014.eswc-conferences.org/>

²³ <http://2014.eswc-conferences.org/program/eu-project-networking>

3 Conclusion

In addition to creating high-quality educational materials for Linked Data, the EUCLID partners have spent a significant effort in the last 12 months on activities related to real-world engagement of the Linked Data and Semantic Technology community.

EUCLID has successfully delivered training courses and tutorials at a variety of events:

- Informal meetups and expert meetings
- Summer schools for MSc and PhD students
- Top tier conferences in the field, such as ISWC, WWW, ESWC and Semantic Days
- Professional training to major media & publishing companies in the UK and USA

The feedback received in the last 12 months from various audiences – ranging from university students, to industry data practitioners – has been very positive and proves the importance and impact of the EUCLID work in the last two years.

References

- [1] <http://www.elec.qmul.ac.uk/digitalmusic/>
- [2] <http://www.ontotext.com/clients>