
Deliverable 2.1.3

Online Community Engagement Plan

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Executive summary

This deliverable contains the initial plans for community engagement with regards to the curriculum development to take place within the EUCLID project. The online community is split into two sets of channels. One, for active engagement, leverages the consortium's extensive experience with past and on-going European funded, and other, research project that, in recent years, have made use of online presence and social media to promote their results and achieve engagement and feedback on that work. The second set of channels to the online community is less 'traditional' and will involve engagement within pre-existing targeted communities wherein members actively pose questions and problems, and where threads exist devoted to specific technical questions and queries. In many ways engaging with these existing channels is essential to establishing EUCLID 's reputation as a 'good Linked Data citizen' and thereby achieving buy-in. Furthermore, in fulfilling this role we hope to achieve feedback on our developing curriculum and training materials from prominent experts within the field in a much more active form than had we simply made them available and asked for feedback based on simple good will (without efforts to achieve this). This engagement activity is therefore critical to EUCLID 's success.

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Abbreviations

DoW – Description of Work

EU – European Union

OWL – Ontology Web Language

RDF/S – Resource Description Framework / Schema

SPARQL – SPARQL Protocol and RDF Query Language

WP – Work Package

1 Introduction

A large factor in the recent success of the Linked Data movement - otherwise defined by four simply-stated principles and the set of standards (W3C/IETF Web/ Internet standards and W3C Semantic Web standards) - is the large and enthusiastic community and the best practice it defines. No attempt at training in the current state of the art, therefore, will be successful without engaging and harnessing the know-how of this community. Furthermore, in order to create an active and improving feedback cycle along the road to refining the curriculum, and producing supporting training materials, the notion of being a 'good Linked Data citizen' (as a project) is key. Commercialisation has, inevitably, already reared its head within the community (which is highly evident in certain on-line channels), and indeed several commercial players (consortium members included) have already seized on training as a means to business development. Therefore, EUCLID must distinguish its training approach as being open, feedback-driven and best-of-breed. Visibility and 'good citizenry' will be the central means to achieving this aim and are the main focus of the plan documented in this deliverable.

1.1 Purpose of the Engagement Plan

This Online Community Engagement Plan - together with its dual, the Real-World Community Engagement Plan, presented in Deliverable 2.3.1 - will set forth means, feasible within the project's duration and resource constraints, that will allow the consortium to:

- promote the EUCLID 'brand';
- seek take-up of the training material as a whole;
- propose features within the training material as answers to specific questions raised in the community;
- solicit feedback on the curriculum and training materials.

In order to address these aims the online channels into the Linked Data community have to be placed into two sets, distinguished more in intent than clear membership, that we shall characterise as follows:

- *Broadcast* channels - although they involve comments, general purpose social media channels are best employed, by nature, for broadcast-type promotion; certain mailing lists also fall primarily into this category by their nature;
- *Responsive* channels - in the already-existing online channels more closely associated with the Linked Data community there is a greater possibility (or need) to engage responsively with the on-going dialogue.

Sections 2.1 and 2.2, respectively, describe these sets, the specific channels we consider and what strategy we shall follow. Section 3 will then describe the means to judge effectiveness of the engagement plan, later to be reported in Deliverables 2.1.4 and 2.1.5. Finally Section 4 will outline the infrastructure that will be assembled and/or developed to support the process of engagement with these online channels.

1.2 Strategy by Counter-Example

In order to draw attention to the need to have a well-thought-out engagement strategy we consider first a counter-example that both reveals a number of salient lessons and the general power of self-organising communities of interest, which are intended to be the focus of our engagement plan.



Figure 1: Front page of the W3Schools website

[W3Schools](#) is a website [1], illustrated in Figure 1, containing a large amount of training material devoted to Web development, frequently promoted within this community. To some degree this coincides with the interests of EUCLID (covering XML technologies, though not RDF in any detail; services and APIs; and queries, though in SQL without coverage of SPARQL).

While W3Schools have invested a significant effort in planning an extensive curriculum, in developing interactive teaching materials, and in promoting their work, a significant backlash in the community has formed, best illustrated by the [W3Fools](#) website [2], illustrated in Figure 2. As suggested by the 'From' section, this website represents a self-organising group from the Web Development community devoted to (constructive) criticism on the W3Schools website.

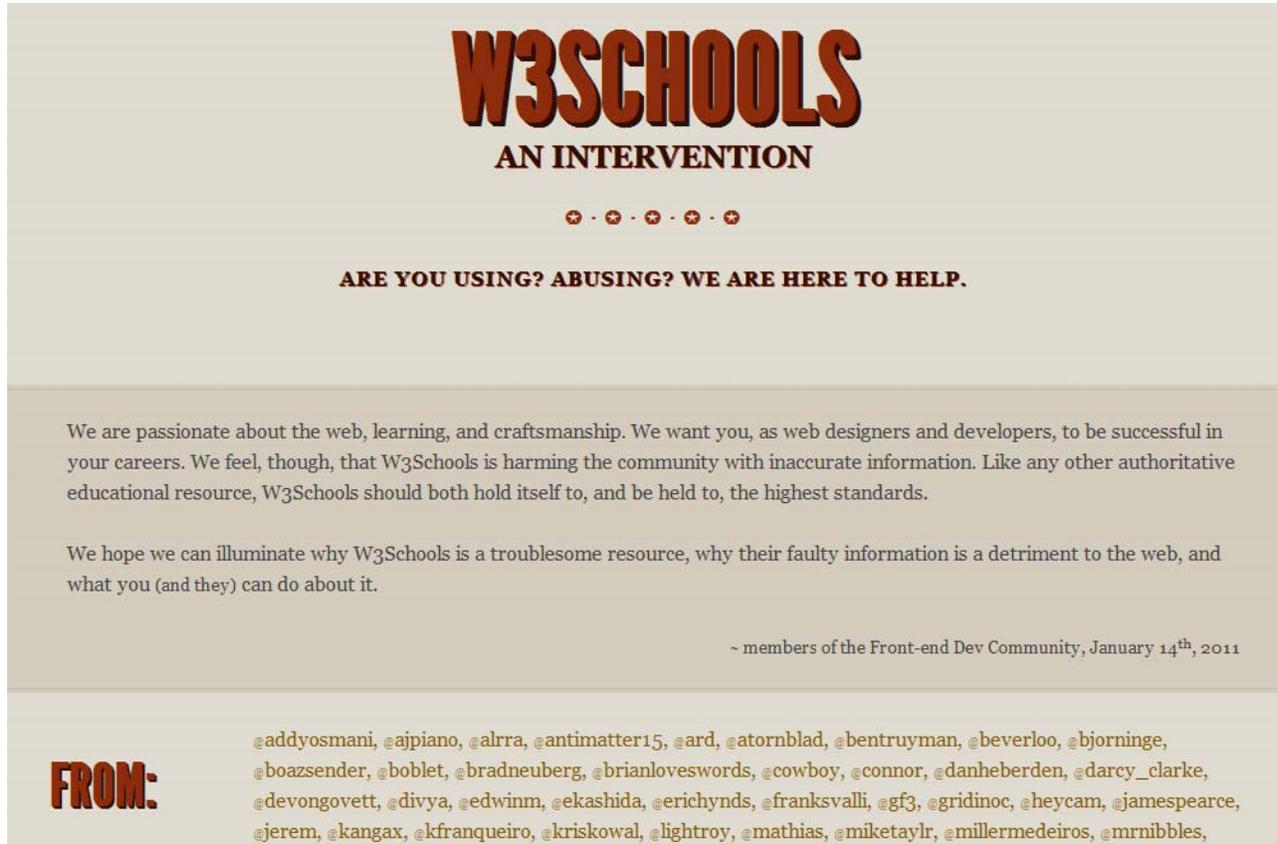


Figure 2: Front page of W3Fools website

Clearly there are many lessons that may be learned from this community reaction; many of which the website spells out directly, as seen in Figure 3 and Figure 4.

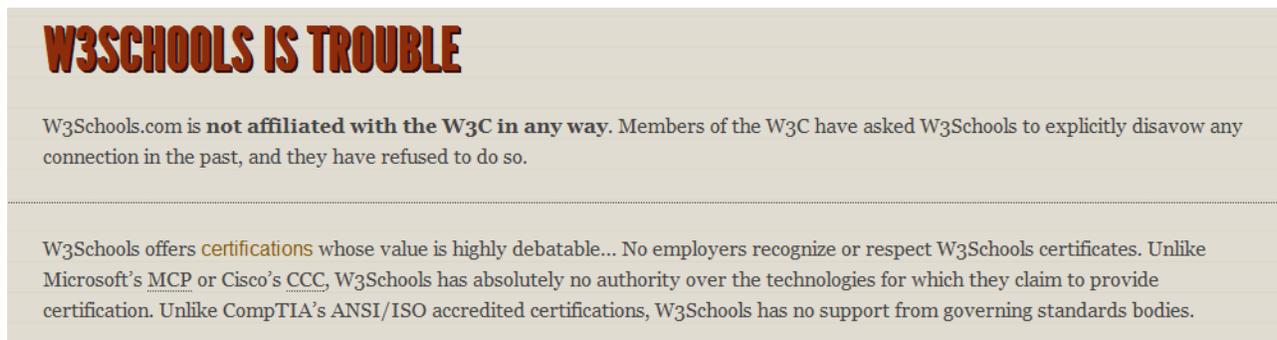


Figure 3: Affiliation and certification claim from W3Fools website

Specifically Figure 3 shows a strong opinion with regard to (pseudo-)professional certification. Although within the consortium there is experience in offering training towards certification this will not be the approach taken within EUCLID.

WHAT SHOULD BE DONE

1. **W3Schools** should consider wikifying their content so the community could self-correct and keep the information up-to-date. Today, they do not even allow you to submit corrections on a page. They should.

2. **You** should learn from (and recommend) these more reputable sources:

[Opera Web Standards Curriculum](#) covers the basics of web standards-based design in HTML and CSS.

[Google's HTML, CSS, and Javascript from the Ground Up](#) presents the basics of web development with video tutorials presented by Google's expert web developers.

[SitePoint](#) is a pretty good reference for HTML, CSS and JavaScript. Their documentation always mentions feature support across different browsers, and describes known browser bugs.

The W3C, itself, has a wiki-based general [Learn](#) page as well as an [HTML element reference](#).

The [MDN \(Mozilla's Developer Network\)](#) takes over at intermediate CSS and covers JavaScript better than anyone.

The MDN is also a wiki (little known fact), which means we, as knowledgeable web developers, can add or change information so the pages are as effective and comprehensive as possible.

Figure 4: Advice from W3Fools website

Examining Figure 4 there are further lessons of direct relevance to the feedback that EUCLID hopes to promote. As a hacker community W3Fools feel that all tutorial material should be 'Wiki-fied' to allow public editing. While EUCLID is not ready to commit to quite that degree of openness, and not able to manage long-term a moderated Wiki policy as employed in the MusicBrainz dataset [3], we will allow in-place feedback on all materials including suggestions for corrections and improvements, and will quickly respond to these and openly offer credit for such contributions. This stands in stark contrast to the need for external corrections, as is the approach of W3Fools, illustrated in Figure 5.

HTML

www.w3schools.com/html/html_headings.asp.
 | Note: Browsers automatically add an empty line before and after a heading.

This is an oversimplification. Browsers' default stylesheets define these elements as block-level with non-zero `margin-top` and `margin-bottom` values. No newlines are added.

www.w3schools.com/html5/html5_intro.asp.
 | The latest versions of Safari, Chrome, Firefox, and Opera support some HTML5 features. Internet Explorer 9 will support some HTML5 features.

This is misleading. Many features that have existed for years in IE are just now being standardized by HTML5, e.g. `contenteditable`. IE8 also already supports `localStorage`, which is an HTML5 feature.

Figure 5: Corrections to W3Schools training material offered at the W3Fools website

2 Channels for Online Community Engagement

Within the engagement plan we distinguish strategy according to two groupings of online channels used by the Linked Data community. The point is not that these are wholly distinct sets, but that the strategy that is followed to engage community members into take-up of, and feedback on, the EUCLID curriculum and training materials will be defined in these two separate ways.

2.1 Broadcast Channels

The broadcast channels are those where we are concerned primarily to establish identity and make announcements. These will be the means by which take-up of rich content, such as eBook and Webinar subscription will be targeted. Where responsiveness applies to these channels, it is oriented only towards pointers into EUCLID content, not a dialogue (therefore feedback, including suggestions, will be collected via another channel).

For this reason basic established measures (followers, reweets, etc.) can be used to judge success on these channels, as described in Section 3.1. Furthermore, we shall follow well-established means, described in Section 4.1, to provide output via these channels, which needs little tailoring.

2.1.1 Social Media

The traditional social media channels (Twitter, Facebook and LinkedIn being the primary examples) are increasingly part of the dissemination of research projects. It will, of course, be important for EUCLID to establish an identity via these channels, but this is primarily a means for the distribution of announcements and not so much for active engagement. In each case a single EUCLID project account will be used for broadcast activities.

The placement of Twitter in the category of Broadcast Channel that does not mean that we should not address Twitter responsively, but that this is simply a matter of sending reply tweets that link to EUCLID content. Twitter will not be used as a means to engage in a dialogue ending in feedback solicitation, as it has only a weak 'threaded' model (easily broken since the - only recently introduced - formal retweet mechanism can be broken by informal/manual retweets, especially when these involve rewording/precis due to the word limit, which itself hampers dialogue).

2.1.2 Rich Distribution Channels

EUCLID aims to capitalise on a number of generic channels, beyond traditional social media, where its richer content, especially the eBook, webinars and other video including screen captures with voice-over, can be broadcast. In particular YouTube, SlideShare and Apple channels will be used for this content. A single EUCLID project channel will be used on each of these sites. Additionally we may engage with the VideoLectures.net site, though this depends on the agreement with event organisers in many cases so we cannot yet commit. These channels belong firmly in this category however as, while commenting mechanisms are provided, these are not the best means for engaging in a dialogue.

2.1.3 Mailing Lists

There are a number of generic mailing lists, such as semantic-web@w3.org [4], that are primarily oriented towards announcements and clearly fit within the category of a broadcast channel. Others are prime candidates as responsive channels, as discussed in Section 2.2.2.

Between these are mailing lists such as public-lod@w3.org [5]. While in theory public-lod could form an excellent opportunity for engagement, we choose to be very cautious about its use due to the culture that exists; extremely in-detail discussions often take place on this list, a particularly illustrative example being the recent post by Jeni Tennison [6] proposing an amendment to the notorious httpRange-14 problem [7]. In the thread itself followed more than 150 replies over a period of more than a week. Within this thread there was a title change by Tim Berners-Lee resulting in a branch of 36 replies. Jeni then posted a follow-up thread that grew to more than 20 replies *before* the original thread died. In the same time period David Booth posted a related thread that also attracted more than 20 replies, he posted his own follow-up thread, and an orphaned thread appeared related to the original but with a broken header reference.

On one level this example shows how technically difficult tracking threads, necessary to act properly in a responsive mode, is on a list like public-lod. More importantly it also shows how the state-of-the-art in Linked Data is not just communicated, but refined (and attacked in virtual 'holy wars'). It is not, and must not be, the aim of EUCLID to move its own goalposts in documenting the current status of Linked Data best practice. For these reasons our aim is to use public-lod as a broadcast channel, announcing the release of new training modules and events, and not to use it as a responsive engagement channel (though the infrastructure proposed in Section 4 will accommodate this as far as is technically feasible). Due to the rather personal nature of these mailing lists announcements will be made by researchers within the consortium rather than from a generic project address.

2.2 Responsive Channels

Using the responsive engagement channels EUCLID will actively monitor for questions related to the topics covered in the educational curriculum and will offer links to the training content - including eBook sections, webinars and screencaps, etc. - both to increase the take-up of training, to increase visibility and to solicit general feedback on the usefulness and correctness of the content produced. Within these channels there is a much greater scope for discussion and feedback gathering (than the broadcast channels), and it would be unnatural and unproductive to try to manoeuvre people into external means, like forcing them into using the EUCLID website, to achieve this.

2.2.1 Answers Sites

Perhaps the primary example of the intention of responsive channels is the site answers.semanticweb.com, a form of the popular question-answering site StackOverflow [8] (indeed *answers* was originally branded SemanticOverflow, and administered using the StackExchange software, before it was acquired by WebMediaBrands and migrated to the open-source OSQA platform). The Web-based front page to answers is shown in Figure 6.



The screenshot shows the front page of the answers.semanticweb.com website. The header features the site logo and the tagline "The Voice of Semantic Web Technology and Linked Data Business". A navigation bar includes links for Home, Events, Community, Learning, Industry Verticals, Answers (selected), and Jobs. Below the navigation bar, there are links for Questions, Tags, Users, Badges, Unanswered, and Ask A Question, along with login, about, and faq links.

The main content area displays a search bar and a list of questions. The questions are sorted by active status, with options for newest, hottest, and most voted. The visible questions are:

- using SPARQL with jena**: 1 vote, 3 answers, 35 views. Tags: jena, rdf, sparql. Posted 39 mins ago by bobdc 2.4k.
- Fuseki server error**: 1 vote, 2 answers, 45 views. Tags: tdb, fuseki. Posted 3 hours ago by AndyS 6.3k.
- rdf:List vs rdf:Container vs OLO:OrderedList vs own Implementation**: 0 votes, 0 answers, 7 views. Tags: collections, sparql1.0, list, arc2. Posted 6 hours ago by FlyOn 195.
- Are there such things as RDF editors?**: 6 votes, 6 answers, 2.5k views. Tags: rdf, rdfs, owl, editor, tools. Posted 10 hours ago by William Greenly 4.3k.

On the right side, there is a "welcome to ANSWERS" box with a description of the site and links for "about" and "faq". Below this, a statistics box shows "2692 questions" and "5774 answers" with a link to "Most recently updated questions".

Figure 6: Front page of answers.semanticweb.com website

A fundamental difference between this site and the discussions characterised in Section 2.1.3 is the high degree of structure. Each question moderated to be a question, rather than announcements or other form of advertising, which will be removed, and questions are distinct from one another. As well as a human-oriented Web front-end, an RSS feed of questions is available.

The high degree of responsivity on the site can be seen at the bottom right of Figure 6 with a current ratio of better than 2:1 (answers:questions) across the site. It is also notable that the range of questions goes from basic ("Are there such things as RDF editors?") to sophisticated ("rdf:List vs rdf:Container cs OLO:OrderedList vs own Implementation"), and from generic (again: rdf editors) to tool-specific (Fuseki and Jena).

Who offers linked data training?

Where can groups of programmers (and non-programmers) get courses in linked data? Are there any reputable course/workshop providers?

7
2

asked Jan 07 '10 at 21:46
brinxmat 1.2k-1+11

7 Answers: oldest newest most voted

4
Not sure where you are based, but I read a few weeks back that Talis are running a series of 'Open Days' in the UK: <http://blogs.talis.com/nodalities/2009/11/talis-platform-open-days.php>

answered Jan 11 '10 at 10:27
bilroberts 796-1+9

This is a good tip, however, we're looking for training on specific topics. Maybe Talis offers this kind of thing (or is everything they do product-related?)

answered Jan 11 '10 at 13:07
brinxmat (Jan 11 '10 at 13:07)

Yes, we do offer general linked data training. Email me at ian.davis@talis.com

answered Jan 12 '10 at 21:03
ian Davis (Jan 12 '10 at 21:03)

Thanks Ian, I will do that :)

answered Jan 14 '10 at 20:03
brinxmat (Jan 14 '10 at 20:03)

I'm guessing that the recent announcement by Talis means you should look elsewhere <http://talis-systems.com/2012/07/refocusing-our-efforts-and-investments/>

answered Jul 13 at 04:38
brinxmat (Jul 13 at 04:38)

6
TopQuadrant has been offering a semantic web technology course since 2004. While it covers a lot more than linked data, roughly one day of the four day course is dedicated to linked data (in the form of RDF and SPARQL), and linked data plays a key role throughout the course, including the case studies and best practice units on the fourth day. While the course uses TopQuadrant's tool TopBraid Composer for the hands-on part of the course, the content of the course is Semantic Web technology and standards. <http://topquadrant.com/training/intro.html>

answered Feb 13 '10 at 21:22
dalleman 99-1

3
Semsphere have a module on Linked Data as a part of their *Semantic Technology Professional (STP)* certification/training course

answered Jan 08 '10 at 09:49
Marin Dimitrov 31-1

Follow this question
By Email: Once you sign in you will be able to subscribe for any updates here
By RSS: Answers, Answers and Comments

IMPORTANT:
If you are a legacy SemanticOverflow user, [click here](#) for information about how to connect to your old profile.

SemanticOverflow

Tags: linkeddata x156
Asked: Jan 07 '10 at 21:46
Seen: 1,208 times
Last updated: Jul 13 at 04:38

Figure 7: An example question, and selected answers, from the answers.semanticweb.com website

Under each question is a strict separation of comments and answers, which themselves are capable of being commented upon (3 answers to the question are shown in Figure 7, the first itself having four comments). Again, strict moderation ensures the correct categorisation of responses (answers are often demoted to comments and occasionally vice versa).

Figure 7 also demonstrates that the answers community are quite solicitous when it comes to training - the idea does not need to be foisted upon them.

Correspondingly Figure 8 shows that offering training links within helpful answers is already part of the site culture. EUCLID will improve on this by offering highly targeted links within training material, not just entire tutorials.

OWL inverse functional property and rdf:type

I'm new to ontologies and am not quite sure I get how an inverse functional property works. Consider a simple example with an inverse functional property 'hasUniqueld' and an individual 'x' of class 'my:C' which is defined as x hasUniqueld 1. Now if I define a new individual y of class 'owl:Thing' along with the axiom y hasUniqueld 1

Because of the inverse functional nature of the property 'hasUniqueld', does it mean that the rdf:type of y changes from owl:Thing to 'my:C' (the class of x)?

How does the inverse functional characteristic manifest?

Please help!

jena owl semanticweb protege

retag | report

asked 2 hours ago

dhas 1=1

add new comment

One Answer: oldest newest most voted

For inverse functional which means that the inverse property is functional. So, for a given individual, like x, there can be at most one individual related to another individual, like 1 via your given property 'hasUniqueld'. So, for the assertion 'x hasUniqueld 1' and 'y hasUniqueld 1', we can infer that x and y are the same individual, and certainly, the rdf:type of y is also my:C.

You can find many additional useful information here <http://owl.cs.manchester.ac.uk/tutorials/protegeowtutorial/>

link | report

answered 1 hour ago

W.T Zhou 613 1=5

Figure 8: Training link in answer on answers.semanticweb.com website

An open question for EUCLID is whether to address StackOverflow as well as the semantics specific version but the best approach would seem to be to start with answers.semanticweb.com and reconsider this at the project midpoint.

2.2.2 Mailing Lists

While generic, announcement-oriented lists like semantic-web@w3.org [4], and overly complicated and/or argumentative lists like public-lod@w3.org [5], are best considered as broadcast channels (see Section 2.1.3), there are a number of lists where a more responsive approach can be taken.

Among the prime candidate mailing lists as responsive channels are those based around particular tools that will be covered in the EUCLID curriculum detailed in Deliverable 1.1.1. Although the particular tools will be chosen as the learning materials are developed, among those already clear would be:

- the Sesame framework mailing list, sesame-general@lists.sourceforge.net [9];
- the OWLIM database mailing list, owlim-discussion@ontotext.com [10];
- the mailing list titled "support, development and discussion of D2RQ and database-to-RDF mapping", d2rq-map-devel@lists.sourceforge.net [11];
- the Google Refine mailing list, google-refine@googlegroups.com [12], and the issues tracker for the RDF extension to this tool [13], which uses dynamic addresses in the @reply.github.com domain.

From the above it may be seen that although email is the secondary means of interaction with these tool-oriented subcommunities, the platforms used are so variant (Sourceforge, Google Code, Github) that a comprehensive approach to infrastructure development is feasible, within the project, based on generic email. As with the non-responsive mailing lists, due to the personal nature of the lists researchers' individual mail accounts will be used.

2.2.3 Twitter

As mentioned in Section 2.1.1, in general social media are best seen as broadcast channels in the EUCLID online community engagement process. On the other hand Twitter presents a particular case where responsive engagement may be appropriate in some cases. Although the generic technologies considered by EUCLID (RDF/S, SPARQL, OWL, etc.) will be found mainly in announcement-type tweets (e.g., from other projects, research and commercial), specific tools covered in the curriculum may be useful points of engagement. Figure 9 gives an example of recent tweets related to the OWLIM database; the first of these would be a good point of response regarding coverage of geo-spatial reasoning in the EUCLID content.



Figure 9: Tweets relevant to the OWLIM database at the Twitter website

As with the case of non-responsive social networks, a generic EUCLID project account will be used even in the responsive case.

2.3 Timing of Strategy with respect to Channel Types

The broadcast channels mentioned in Section 2.1 will be applied imminently during the project. For instance the first webinar will be made available on rich distribution channels, in August 2012, and will be announced on Facebook, Twitter, LinkedIn and selected mailing lists including semantic-web@w3.org and public-lod@w3.org.

Engagement via responsive channels will be guided by the available teaching content; for instance once querying/SPARQL training is available in Module 2 it will be announced on triplestore-oriented mailing lists, as well as broadcast ones, and these lists, together with answers.semanticweb.com, will be monitored for querying-oriented questions. Similarly, once Module 3 is produced, lists like the Google Refine and D2R ones will be included and the monitoring will include searches for questions on spreadsheets and relational databases.

In order to accommodate this schedule, the infrastructure described in the following section must be made available within the consortium by M6.

3 Measuring Engagement Effectiveness

Deliverables 2.1.4 and 2.1.5 will present interim and final results of EUCLID's community engagement process. They will develop a comprehensive means to evaluate the effectiveness of the strategies presented in this plan. In advance of this work, however, basic means to measure effectiveness on various channels must be sketched in order to ensure that the infrastructure discussed in the following section will be assembled with the enablement of these measures taken into account.

As in the previous section the two groups of channel types are considered separately in the following subsections.

3.1 Effectiveness in Broadcast Channels

For the broadcast channels well-established measures of engagement measurement suffice, for example:

- number of follows/likers/members and subscriptions (social media and rich distribution channels);
- number of shares/(re)tweets of announcements (social media announcements and rich content both via social media);
- number of replies/comments (social media and mailing lists).

3.2 Effectiveness in Responsive Channels

In addition to those same measures as in the previous subsection, which may be applied to mailing lists and Twitter, there are specific considerations related to answers sites that we may wish to consider. On these sites, deriving from StackOverflow (or the StackExchange platform on which it is built), voting, by all registered members of the site, and acceptance of answers, by the posing user, are important parts of the user interaction. Furthermore votes and acceptances are fed back into user profiles in the form of 'reputation' or 'karma', providing a measure of the 'good citizenry' of each user. Further acts of housekeeping and moderation within the site earn the user 'badges' and further reputation/karma.

One approach for demonstrating the effectiveness of EUCLID on the answers site would be to set up a dedicated EUCLID user and adopt the karma measure provided there, as shown in Figure 10. This may be counter-productive in not exploiting existing karma that members of the consortium may possess.

Barry Norton

Barry Norton

Registered user

real name **Barry Norton**

member since **Oct 05 '11 at 18:23**

last seen **0 secs ago**

user's website <http://www.ontotext.com/training>

location **London**

age **35 years old**

email **barrynorton@gmail.com**

1,163
karma

User tools ▼

I am a Solutions Architect with Ontotext AD, providing training and consultancy in London on the OWLIM semantic database. I spent much of my life as a Semantic Web researcher - working at University of Sheffield, from where I hold a PhD, Open University, STI Innsbruck and the Karlsruhe Institute of Technology. Previously I worked as a developer and trainer on relational database applications.

[overview](#) [recent activity](#) [karma history](#) [votes](#) [favorites](#)

Figure 10: User profile, including karma score, on answers.semanticweb.com website

A second reason to be cautious about a single user to represent the EUCLID project relates to the comment shown in Figure 11; aggressive self-promotion is frowned upon. On the other hand, disclosure of affiliations related to the answer have been positively encouraged on the site. It seems best therefore to post as individuals but to point out the affiliation to the EUCLID project when linking EUCLID content.

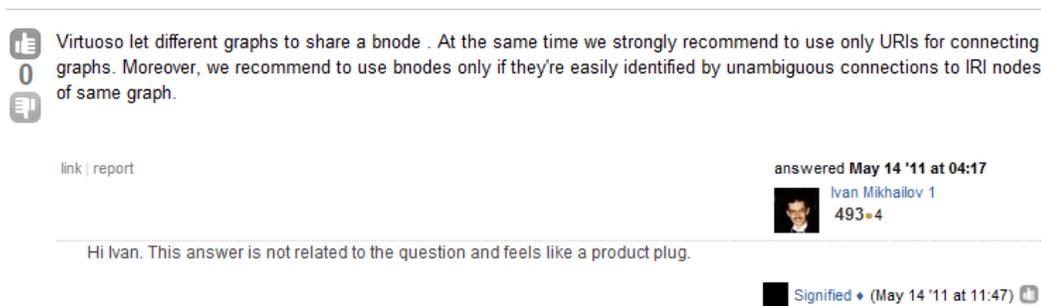


Figure 11: Negative comment related so self-promotion on answers.semanticweb.com website

The appropriate way to judge the effectiveness of engagement through such sites, as a result, would seem to be to externally monitor accepted answers and votes, rather than to try to adopt user-based reputation/karma.

4 Supporting Infrastructure

Due to the nature of the EUCLID project there is limited scope for the development of novel software. On the other hand existing solutions are limited with regard to some of the requirements that arise in the previous sections. In this section we consider critically what off-the-shelf software is available and what tailoring will be necessary. Throughout we take into account that with regard to Linked (Open) Data EUCLID's stated aim is to lead by example, based on exposure of project resources; therefore we should like to accommodate that our community engagement output, and its monitoring, can be browsed as Linked Data.

4.1 Infrastructure for Broadcast Channels

For the broadcast mode of operation, especially with regard to social networking channels, there exist several feature-rich solutions from the area of social media management. Tools like HootSuite [14] and Seismic [15] allow:

- management of multiple social media channels (each including Facebook, Twitter and LinkedIn);
- publishing of content to channels based on RSS;
- analytics.

As an example of the latter, Figure 12 shows analytics offered for Facebook in the HootSuite product. It is important to note, however, that this is a 'premium' feature and not included in the core product. Such features have no academic/research licensing model. In the same way, HootSuite offers collaborative features in the form of multi-user support and tasks with workflows and assignments. Again, however, these are premium features.

With regard to the Linked Open Data these cloud-based social media management tools are unhelpful, being 'silos' wherein the data collected (from social media streams) and produced (by follows-up and analytical aggregation) are not available for exposure. For this reason, and to accommodate the more advanced requirements of responsive channels, we choose to use freely-licensable installable tools - rather than, and reproducing some of the functionalities of, cloud-based social media management platforms - as described in the following subsection.

4.2 Infrastructure for Responsive Channels

In order to deal, in a collaborative fashion, with responsive channels of online engagement we require a platform which:

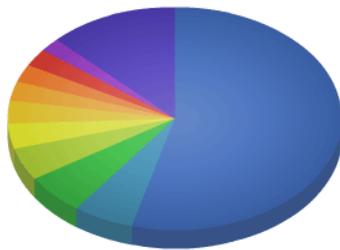
- automatically monitors channels for opportunities to respond (i.e. occurrence of subscribed keywords - such as 'RDF', 'SPARQL', 'OWL', 'triplestore' - in mailing lists, the RSS question feed from answers sites, and a subset of these keywords on Twitter);
- allow response tasks to be created across manually confirmed opportunities in these channels (note: the responder might not be the one who is carrying out this manual confirmation);
- attaches a workflow to this task to make sure follow-up is pursued and the task is only closed when this is exhausted.

Due to the complexities of mailing lists, as described in Section 2.1.3, which are not well-supported by off-the-shelf social media management tools, and the specific structures (answers, comments, acceptances) of answers sites, explained in Section 2.2.1, which have no support at all, it will be necessary for EUCLID to adopt a more custom-assembled solution.

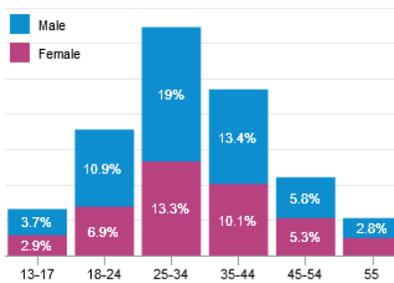
By careful selection of a tool with semantic capabilities the requirement to product Linked Open Data from the engagement activities can also be accommodated.



Type	Date	Post	Reach ?	Engaged Users ?	Talking About This ?	Virality ?
	Jan 10, 2012	A great read! "10 New Features...	153	19	-	-
Photo	Jan 9, 2012	12 Consumer Trends for 2012...	113	16	6	3.0%
	Jan 7, 2012	"Companies are looking for...	182	12	3	2.21%
	Jan 7, 2012	#HootTips	141	12	-	-
	Jan 6, 2012	Are you running your marketing...	238	11	-	-
	Jan 6, 2012	Build Your Brand AND Survive the...	195	10	8	5.38%
	Jan 5, 2012	12 Consumer Trends for 2012...	179	8	1	5.4%
	Jan 5, 2012	"Companies are looking for...	130	8	1	3.0%
	Jan 4, 2012	#HootTips	204	4	5	2.21%
	Jan 4, 2012	Are you running your marketing...	153	2	-	-



Country	Likes
United States	76,615
United Kingdom	8,337
Canada	8,264
Indonesia	6,693
Japan	5,204
Brazil	4,743
Mexico	3,952
Spain	3,633
Philippines	3,602
Australia	2,831



Age	Male	Female
13-17	2.80%	2.20%
18-24	9.80%	6.20%
25-34	19.10%	13.30%
35-44	14.30%	10.60%
45-54	6.50%	5.80%
55+	3.20%	2.90%

Figure 12: Facebook Analytics offered by the Hootsuite product

The Information Workbench product from fluidOps [16] is a triplestore-backed Semantic Wiki that has a number of existing components for the importing of social media data via Twitter and Facebook APIs and from RSS feeds. It offers visualisation components, comparable with those used to provide HootSuite's analytics, seen in Figure 12, based on SPARQL queries on the underlying triplestore. Finally it has already been used to provide workflow-oriented task versioning in commercial installations, such as at the Press Association and the BBC, where Ontotext work alongside fluidOps in semantics-based solutions. As such, for a feasible amount of effort the requirement features from social media monitoring tools can be reproduced, the advanced requirements of responsive channel engagement effected, and the underlying data can be simply exposed as Linked Open Data. For this reasons we choose to build EUCLID engagement infrastructure based on the Information Workbench platform.

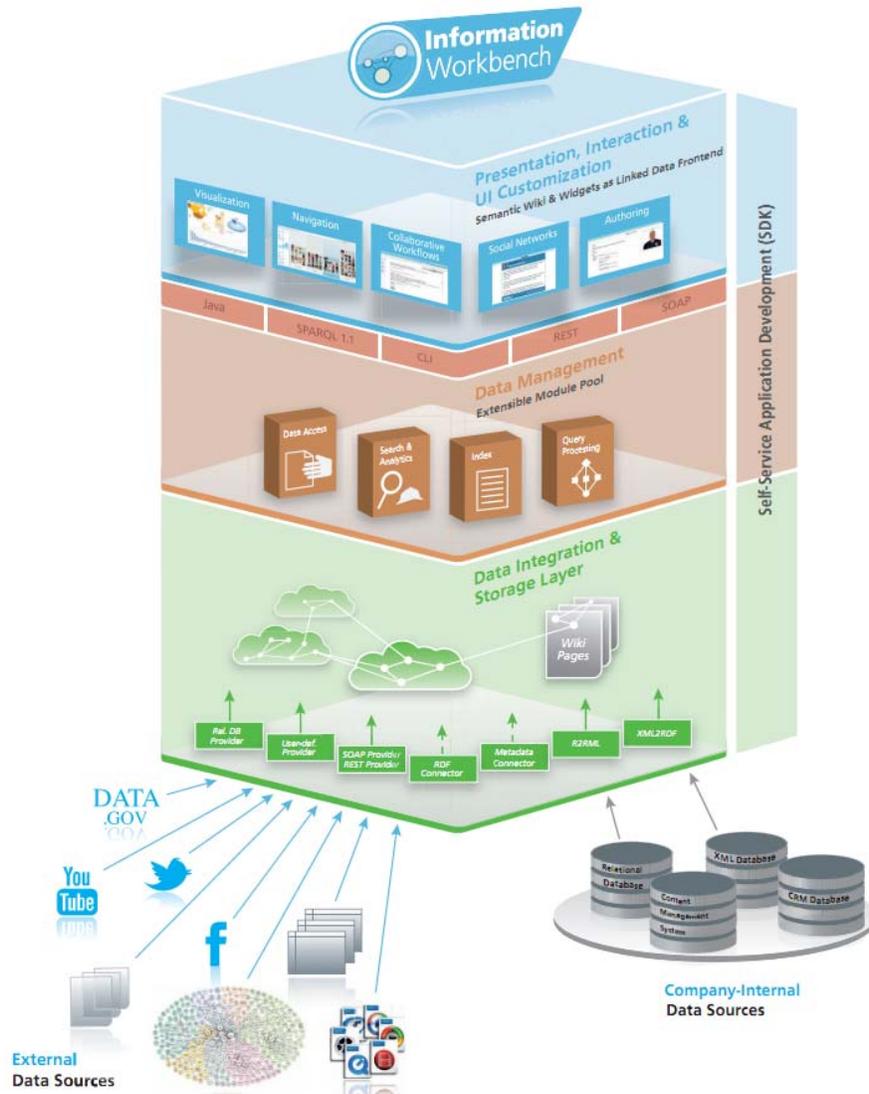


Figure 13: Information Workbench Architecture

5 Conclusion

In this deliverable we have motivated, analysed and provide strategies for the engagement within the Linked Data community, with a view to promoting the brand and take-up of the EUCLID's curriculum and training materials, and their on-going improvement via feedback, exploiting online channels. We have reflected on the cautionary tale on a flawed engagement strategy, in providing training, and drawn out lessons that should guide our strategy. By considering the landscape of the Linked Data community online, we have distinguished between different forms of channels and considered for each how we should judge the effectiveness of engagement and what infrastructure will be needed to conduct the engagement activity and its effective monitoring.

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- [15] <https://seismic.com/>
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