



D 1.4.3 Report on third international technology show

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Abstract.

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The aim of the Task 1.4.3 in Workpackage 1.4 within the network of excellence Knowledge Web is to promote ontology and semantic web technology through the organisation of *technology shows*. This deliverable firstly reports on a way to promote technology developed under the umbrella of the Knowledge Web activities that is a *virtual technology show*. The virtual technology show is part of the dissemination effort carried out by the industry area, and it consists of a repository of tool and application descriptions, with user feedback and recommendations. The repository is based on the survey described in D.1.4.3v2, where the descriptions have been revised and updated to take into account new developments, and, in addition, an open call has been issued for the contribution of new software descriptions to the repository. Secondly, the report describes ongoing planning and organisational efforts regarding the staging of a final live technology show to promote semantic web technology to an industry audience.

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- University of Aberdeen
- National University of Ireland Galway
- University of Manchester
- University of Innsbruck
- University of Sheffield
- The Open University

Changes

Version	Date	Author	Changes
0.1	5-12-2006	I. Blacoe and V. Tamma	First draft with the description of the software repository
0.2	15-12-2006	I. Blacoe	Added modalities for contributing new entries and open calls
0.25	02-01-2007	I. Blacoe and V. Tamma	Added rating mechanisms and classification according to the KWeb ontology of semantic web topics
0.3	05-01-2007	I. Blacoe and V. Tamma	Added descriptions of current actions on repository and showcase.

Executive Summary

The aim of the Task 1.4.3 in Workpackage 1.4 within the network of excellence Knowledge Web is to promote ontology and semantic web technology, to business and industry, through the organisation of *technology shows*. This deliverable firstly reports on a way to promote technology developed under the umbrella of the Knowledge Web activities that is a *virtual technology show*. The virtual technology show is part of the dissemination effort carried out by the industry area, and it consists of a repository of tool and application descriptions, with user feedback and recommendations. The repository is based on the survey described in D.1.4.3v2, where the descriptions have been revised and updated to take into account new developments, and, in addition, an open call has been issued for the contribution of new software descriptions to the repository. Secondly, the report describes ongoing planning and organisational efforts regarding the staging of a final live technology show to promote semantic web technology to an industry audience.

The goal of the workpackage 1.4 within the network of excellence KnowledgeWeb (Kweb) is to promote ontology technology and to show the added value resulting from the use of semantic web technology. The work carried out in this workpackage has the objective of creating awareness of how semantic web technologies can become the vehicle enabling organisations to deliver new products and services. One of the ways in which the objective is achieved is through the organisation of *technology shows*. That is, events aimed at a wider audience, composed by industrial organisations, public institutions and major IT players, where different tools and applications, partly developed within KnowledgeWeb, are presented in order to provide efficient support to a faster take up of these technologies by industry.

In a previous report on this task (D1.4.3v2 [D1.4.3 v2]) we reviewed two major events organised in full or in part by KnowledgeWeb, where academic and industrial researchers presented their work. These were the Technology show at the 2nd European Semantic Web Conference (ESWC 2005), and the “Semantic web days” meeting. In particular, our aim was to review the systems presented during the technology show, while comparing and contrasting these systems with the demands of specific type of technology made by industrial organisations during the “Semantic web days”. In this way we contextualise the technology currently available with respect to the way Semantic Web technology is used in industry.

In this report we describe our ongoing actions and plans to provide an online *virtual technology show* of semantic web technology, that has been pursued as an alternative to the previous ‘live’ shows mentioned above. The online show primarily consists of a repository of descriptions of current semantic web software tools and applications, and is published on the Knowledge Web Industry Portal under the Best Practices menu. We report on the mechanisms and procedures developed for the key features of this repository, including the automated user feedback mechanism, editorial oversight and the use of a ‘recommendation board’ to award special status to those software systems considered to be ‘best-of-breed’ in their area of functionality.

This report builds on the discussions and classification of semantic web technology presented in the first and second reports on technology shows (D1.4.3v1 [D1.4.3 v1] and D1.4.3v2). Following last year's conclusions, in this report we distinguish *semantic web applications* from *semantic web tools*, where by applications we refer to semantic technologies for the end-user while by tools we denote software aimed at developers of semantic web applications. A tool is meant to be an aid to the development process and might not be an application itself, but might be embedded in a system, or be a plug-in. An application is aimed at a general audience, with no specific background knowledge, whereas a tool is aimed at knowledge engineers or ontology developers.

This report also details activity planned for the upcoming year, building on the work carried out in the past two years, and pursuing two main objectives:

1. The creation of a repository of semantic web tool descriptions, that acts as a primary point of reference for industry. Activities in this area have concentrated on the repository itself, but also on devising suitable policies for including systems to this repository whilst guaranteeing quality, and awarding to some of them the "Knowledge Web Recommends". This is achieved through double tier mechanisms, all submissions are initially vetted by our editorial board, and once published they can be rated by viewers.
2. The organisation of a final technology show. This activity aims at organising a final technology show, where "Knowledge Web Recommends" systems are presented. This show is planned for the final year of Knowledge Web, in conjunction with a major event – such as ESTC 2007.

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1. Introduction

The aim of the Task 1.4.3 in Workpackage 1.4 within the network of excellence Knowledge Web is to promote ontology and semantic web technology, to business and industry, through the organisation of *technology shows*. This deliverable firstly reports on a way to promote technology developed under the umbrella of the Knowledge Web activities that is a *virtual technology show*. The virtual technology show is part of the dissemination effort carried out by the industry area, and it consists of a repository of tool and application descriptions, with user feedback and recommendations. The repository is based on the survey described in D.1.4.3v2, where the descriptions have been revised and updated to take into account new developments, and, in addition, an open call has been issued for the contribution of new software descriptions to the repository. Secondly, the report describes ongoing planning and organisational efforts regarding the staging of a final live technology show to promote semantic web technology to an industry audience.

The goal of the workpackage 1.4 within the network of excellence KnowledgeWeb is to promote ontology technology and to show the added value resulting from the use of semantic web technology. The work carried out in this workpackage has the objective of creating awareness of how semantic web technologies can become the vehicle enabling organisations to deliver new products and services. One of the ways in which the objective is achieved is through the organisation of *technology shows*. That is, events aimed at a wider audience, composed by industrial organisations, public institutions and major IT players, etc. where different tools and applications, partly developed within KnowledgeWeb, are presented in order to provide efficient support to a faster take up of these technologies by industry.

Past technology shows organised within this KnowledgeWeb activity included the Technology show at the 1st and 2nd European Semantic Web Conference (ESWC 2004, 2005), and also in 2005 the “Semantic web days” meeting, held in Munich on October 6th and 7th, 2005. In D1.4.3 v1 and D1.4.3 v2 we reported on these technology shows and we aimed to review the systems presented during these events, that included both *semantic web applications* and *semantic web tools*, a distinction introduced in D1.4.3 v1 [D1.4.3 v1] and retained throughout the subsequent versions, where by applications we refer to semantic technologies for the end-user while by tools we denote software aimed at developers of semantic web applications. A tool is meant to be an aid to the development process and might not be an application itself, but might be embedded in a system, or be a plug-in. An application is aimed at a general audience, with no specific background knowledge, whereas a tool is aimed at knowledge engineers or ontology developers. The distinction between applications and tools has been used to contextualise the technology currently available with respect to the way Semantic Web technology is used in industry.

The first and second technology shows allowed us to make an initial analysis of the different types of applications and tools that are currently being developed, and gave us

the idea of creating a comprehensive online repository of tools and applications, where these are described in a unified and objective way, that can constitute the first call of reference for finding out more information regarding available tools and applications. Between 2004 and 2005 there was a reported increase in the number of systems (applications and tools) presented to the technology shows, with 9 systems presented in 2004 versus the 22 presented in the following year (as illustrated in Figure 1), to witness the growing interest in this area. In both years, the majority of the systems presented were composed by applications (Figure 1).

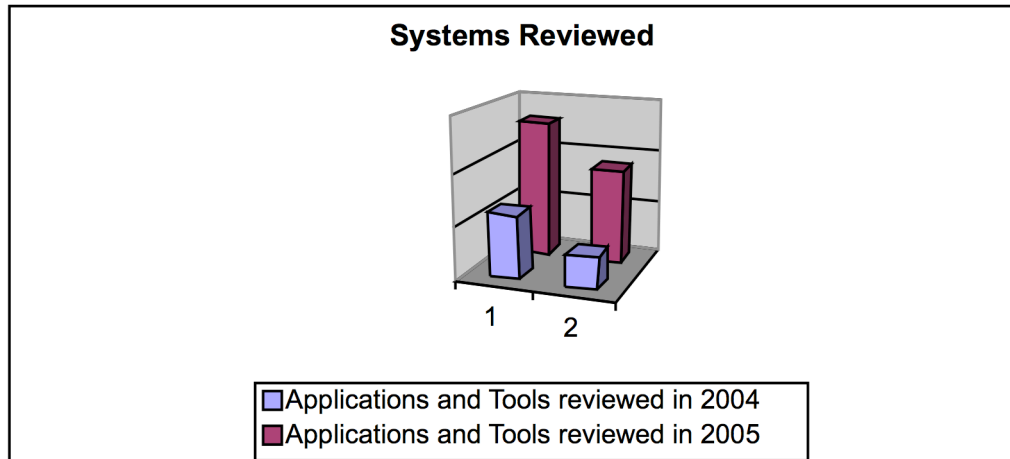


Figure 1. The systems presented in 2004 with respect to the systems presented in 2005.

More information on the types of tools and applications presented can be found in the previous versions of D1.4.3 [D1.4.3 v1, D1.4.3 v2].

In this report we describe our ongoing actions and plans to provide an online *virtual technology show* of semantic web technology, that has been pursued as an alternative to the previous ‘live’ shows mentioned above. The online show primarily consists of a repository of descriptions of current semantic web software tools and applications, and is published on the Knowledge Web Industry Portal under the Best Practices menu. We report on the mechanisms and procedures developed for the key features of this repository, including the automated user feedback mechanism, editorial oversight and the use of a ‘recommendation board’ to award special status to those software systems considered to be ‘best-of-breed’ in their area of functionality.

This year, we built upon the work carried out in the past two years and we have pursued two main objectives:

1. The creation of a repository of semantic web tool descriptions, that acts as a primary point of reference for industry. Activities in this area have concentrated

on the repository itself, but also on devising suitable policies for including systems to this repository whilst guaranteeing quality, and awarding to some of them the “Knowledge Web endorsement”. This is achieved through double tier mechanisms, all submissions are initially vetted by our editorial board, and once published they can be rated by viewers.

2. The organisation of a final technology show. This activity aims at organising a final technology show, where “Knowledge Web endorsed” systems are presented. This show is planned for the final year of Knowledge Web, in conjunction with a major event– such as ESTC 2007.

The remainder of this deliverable is organised as follows: Section 2 describes the current state of, and ongoing developments in, the semantic web software information repository. Section 3 describes the intended technology showcase, in which semantic web software is to be promoted to industry. Finally, we conclude in Section 4.

2. The industry portal software repository

The survey of semantic web tools and applications, as reviewed and reported in D1.4.3 v2, has been subsequently used as the basis for a repository of information on semantic web software systems, and published on the Knowledge Web Industry Portal website. The primary intention of this repository is to act as a *virtual technology show*, providing information on the available software in different areas of semantic web research and development, and thus act as both a point of reference, for interested parties to obtain information on available systems, and a means of promoting the technologies underlying these software systems. To this end, submitted software descriptions use the classification framework devised for D1.4.3 v2, and described in Section 2.2, so that this information repository becomes an unbiased and objective starting point for finding information on software tools and applications that employ semantic web technology. Such a repository will ultimately provide a list of relevant tools and applications from which we will select the ones to be invited to the final technology show in 2007 (see Section 3 for more details). In addition, a comprehensive repository will provide a larger sample to from which draw statistical analysis and draw conclusions, and will also complement and feed into other Knowledge Web activities, and in particular the Technology Evaluation effort carried out in workpackage 1.2.

This software information repository has clear similarities with existing services, such as the general software development repository SourceForge¹, the Open Middleware Infrastructure Institute² for e-Science tools, and independent websites devoted to the Semantic Web like SemWebCentral³. Where this repository differs is that, firstly, it is intended to only be a repository of information on semantic web software – leaving hosting and versioning of the software to the developers, and so requiring much less effort from authors who wish to submit their software descriptions. Secondly, there is a focus on providing evaluation of the software tools and applications listed on the repository – through user feedback mechanisms (see section 2.3), and through the selection board and ‘KnowledgeWeb Recommends’ status (see section 2.1).

The results of the Semantic Web tools and applications survey compiled for D1.4.2 v2 were initially reformatted as a webpage – with index of hyperlinks to the various software descriptions. The index is organized on the same basis as D1.4.2 v2, dividing the systems into tools (software aimed at supporting developers of semantic web applications) and applications (semantic web technologies for the end-user), and then into more specific topics representative of the main purpose of the software described. This initial version of the web-based software repository was then circulated among partners in workpackage 1.4 for comments and amendments. It was felt appropriate to publish this repository as part of the Industry Portal given the intended audience. At present, the current version of

¹ <http://sourceforge.net>

² <http://www.omii.ac.uk>

³ <http://www.semwebcentral.org>

the repository has been published within the *Best Practices* section, on the *Technology Recommendations* menu, of the Knowledge Web Industry Portal⁴. This publication was circulated within the Knowledge Web community, and publicized within the Knowledge Web Industry Newsletter in November 2006.

One of the major objectives for task 1.4.3 in 2006 consisted of envisaging the second stage of deployment of the repository, in which we intend to widen the scope of the systems presented, by agreeing on the management procedure for including new software in the portal, while making sure that a certain level of control is maintained. It was decided to open the submission to the portal to all members of Knowledge Web through an open call, circulated in November 2006, asking to submit details of semantic web software. This call is still open at the time of writing (due to a high number of requests to set the deadline for contribution in mid January 2007), but the number of contributions received so far is encouraging.

An important aspect to which full attention has been given is to ensure a level of quality of the entries in the portal, in order for the repository to provide a means of assessing the listed tools and applications, through implementation of a feedback and/or recommendation mechanism, that will enable potential users to quickly find the best-of-breed software products for their intended purpose. The mechanism devised to help ensure a high level of quality is described in Section 2.1

2.1 Selection mechanisms

Following discussions with workpackage partners (primarily Alain Leger, Roberta Cuel, and Lyndon Nixon) it was deemed necessary to have a two-tier mechanism to ensure both a high quality of software descriptions presented on the repository, and to ensure that the best-of-breed tools and applications could be highlighted as such. The first tier will consist of a small (2 to 3 people) ‘editorial’ team, which will receive and assess submitted descriptions. This team will act to uphold a high standard of submissions, and, if required, can request authors to amend and correct any submitted descriptions prior to publication. The second tier is intended to select those outstanding tools and applications, from the repository, that could then be promoted as being ‘recommended’ by Knowledge Web. Such a mechanism would have to be based on clearly stated selection criteria. These criteria will be based on both simple reported usage statistics, and on more subjective feedback such as the usability of the software, or the degree of success achieved in the specific tasks required by users. Partners agreed that, whilst we would want any recommendation to be largely based on such feedback, there would need to be additional overview from within Knowledge Web to enable standards to be upheld for any ‘recommended by Knowledge Web’ endorsement. Therefore, it was agreed that we would pursue implementation of an automatic reputation feedback mechanism within the

⁴ <http://knowledgeweb.semanticweb.org/o2i/>

repository, which would most probably take the form of voting by partners. This would be coupled with institution of a small 'selection board' drawn from suitable placed and qualified people within Knowledge Web. This board would be there to make the final decision on the status of any submissions to the repository, to ensure that the tools and applications listed are of a high standard, and to ensure that any recommendations are accurate and up to date.

A number of ideas were also proposed regarding possible improvements to the presentation of the repository list, and how any submission and feedback mechanism could be implemented. Suggested approaches to improving the presentation and functionality of the repository involved providing a means to search for and access the software descriptions on the basis of their different features and on the basis of a more structured categorization. Further improvements related to how the website as whole was to be presented, and how the submission and reputation feedback mechanisms were to work. One suggestion was to publish the repository as a Wiki site, possibly in conjunction with the Wiki being set up by workpackage partners for the technology roadmap (task 1.4.1). An alternative would be to have tool submissions and feedback, via web forms, to an editorial team that could then exert a degree of quality control on the content of the repository.

In addition to the activities being pursued to improve the form and function of the repository, the decision had previously been taken to update the content of the repository. As with the initial survey, there were a number of potential sources of information on new tools and applications within the Semantic Web research area. These sources would primarily consist of presentations of papers, posters and, especially, demonstrations at recent important conferences in relevant subjects, and include the returns from a direct survey of researchers and developers. Therefore, in the last year there have been two re-surveys of both the authors of the currently listed software, and of the Knowledge Web community, to update and extend the information in the repository.

2.2 Classification framework

The first action within the ongoing task of updating the repository content was to re-survey the Knowledge Web community, by circulation of a call to partners for contributions of descriptions of their Semantic Web tools and applications. However, we firstly determined that the information requested required amendment, in order to enable a proper categorization of the tools and applications submitted. In the initial survey and in the current repository, there is a two level categorization schema that firstly divides the software on the basis of its type, into generic tools (usable on specified functions across a range of contexts), and applications (with both a specific context and function). Each of these categories is then sub-divided into a number of sub-categories that represent the general function(s) of the software described. However, for the second re-survey we decided that the tools and applications should now be categorized according to the

Semantic Web Topic Hierarchy (SWTH). This topic hierarchy represents a generally agreed sub-division of the research and development areas under the Semantic Web umbrella. The topic hierarchy is published jointly by Knowledge Web and another EU Network of Excellence - REWERSE, and is available at:
http://wiki.ontoworld.org/index.php/Semantic_Web_Topic_Hierarchy.

Each software description entry submitted to the repository can be described using multiple topics from the SWTH, however, we have requested that authors submitting descriptions only use those topics that are most specifically relevant to their software. The aim of this is to avoid overuse of topics, with software being categorized in topics to which it has only peripheral relevance, and thus enable the repository to produce the most relevant results when searched on the basis of the SWTH.

For each entry in the classification, using in the current re-survey, and in any subsequent surveys of demonstrations, etc., the following information is requested:

1. *Application / Tool* - name or title of tool or application.
2. *Developers* - names, affiliations and emails of system developers / authors.
3. *Type of Development* - academic, industry or mixed.
4. *Aim* - brief statement of the aim of the tool or application.
5. *Description* - brief description of the features, methods, and uses of the tool or application.
6. *Development Status* - ongoing development, completed development, ongoing support, etc.
7. *License* - type of license, if any.
8. *Web-site* - URL of main download / documentation website.
9. *Further reading* - Descriptions (in approximate Bibtex format) of relevant publications.
10. *Topics* - relevant topics to categorize the tool or application, taken from the SW Topic Hierarchy.
11. *Type* - tool or application.

Consideration is currently being given to inclusion of further elements in the requested information to address 'business-like' issues – such as target market, cost, availability of training and support, underlying technologies used and infra-structure required, etc. Such additional descriptive elements are likely to be included in the classification framework as optional items, and used in future calls for contributions using the web-based submission system currently under development (see section 2.5). Furthermore, if it is the case that the potential future development of providing a semantic search interface is implemented (see section 5), then an ontological model of the classification framework

will be constructed to provide the vocabulary with which to metadata descriptions of the individual software entries.

The results of this survey will then be used to update the existing content of the repository. Subsequently the repository will then be further revised using a survey of the demonstrations presented at number of recent and relevant conferences, such as ESWC 2006 and ISWC 2006, and further such events in 2007. Improvements to the appearance and access functionality of the repository will be developed in parallel with the content update, and will be completed following the end of this update phase. It may then be necessary to re-examine the hosting of the repository website, in order to support the improved functionality – such as the reputation feedback mechanism. Furthermore, the repository will then need to be re-promoted, both within the Knowledge Web community and directly to industry, in the same way as previously. Finally, the support structures required to maintain the repository, primarily the selection board and a small editorial team, will be put into place prior to the release of the updated repository.

2.3 User feedback

One of the key ideas for the updated version of the repository consists of providing for interaction with the user, in the form of user-provided feedback regarding their appraisal of the tools and applications.

Figure 2 shows an example, from the current development version of the repository, of a generic application description, with the link for submission of any feedback. In the feedback submission page (

Figure 3) a user is first prompted to provide their credentials, in order to authenticate any comments, and a basic mechanism based on e-mail address and a password has been implemented. Such feedback then consists of three elements:

- Textual feedback on how well the software functionalities adhere to its description.
- Numeric appraisal of various features of the software, such as interface, function, ease-of-use, etc.
- Free-text section for any additional comments.

These elements represent only an initial hypothesis, and will be reviewed and revised on advice from project partners. The primary additional feedback elements currently under consideration for inclusion in the finalized version of the feedback mechanism include:

- Rating of maturity of software.
- Likelihood of user's organization using the software.
- Estimated potential effect of use of the software in user's organization.
- Likelihood of user's organization investing in further development of the software.

We believe that keeping submission requirements to a minimum is a key factor in encouraging users to submit their feedback, so such additional elements would be optional feedback. However, we also believe that this is not enough to bootstrap and sustain a continuous feedback from the repository users. Therefore, we propose providing a form of reward for productive feedback writers, which is a very common mechanism in Web communities. The most popular web communities (see for instance eBay – <http://www.ebay.com>) implement mechanisms for which their members are rated according the quantity and the quality of the interactions they have with the community itself. In the case of eBay, for instance, the number of successful transactions is the main indicator of the reliability of a member. In our case the rough idea is that the more feedback submissions a user posts, the more their reputation or ‘experience’ score should grow. We have envisioned different degrees of ‘experience’ that a user can gain by providing their comments on the listed software. This will be reflected in a ranking included in the display of comments, which is seen when another user views the feedback comments. Such ‘experience’ ratings would also be used to give a weighting to feedback comment when considering whether a specific tool should receive any KnowledgeWeb endorsement. After a user has successfully submitted their feedback, a confirmation page with a recap of the ‘experience’ rating gained so far is displayed to them (see

Figure 4).

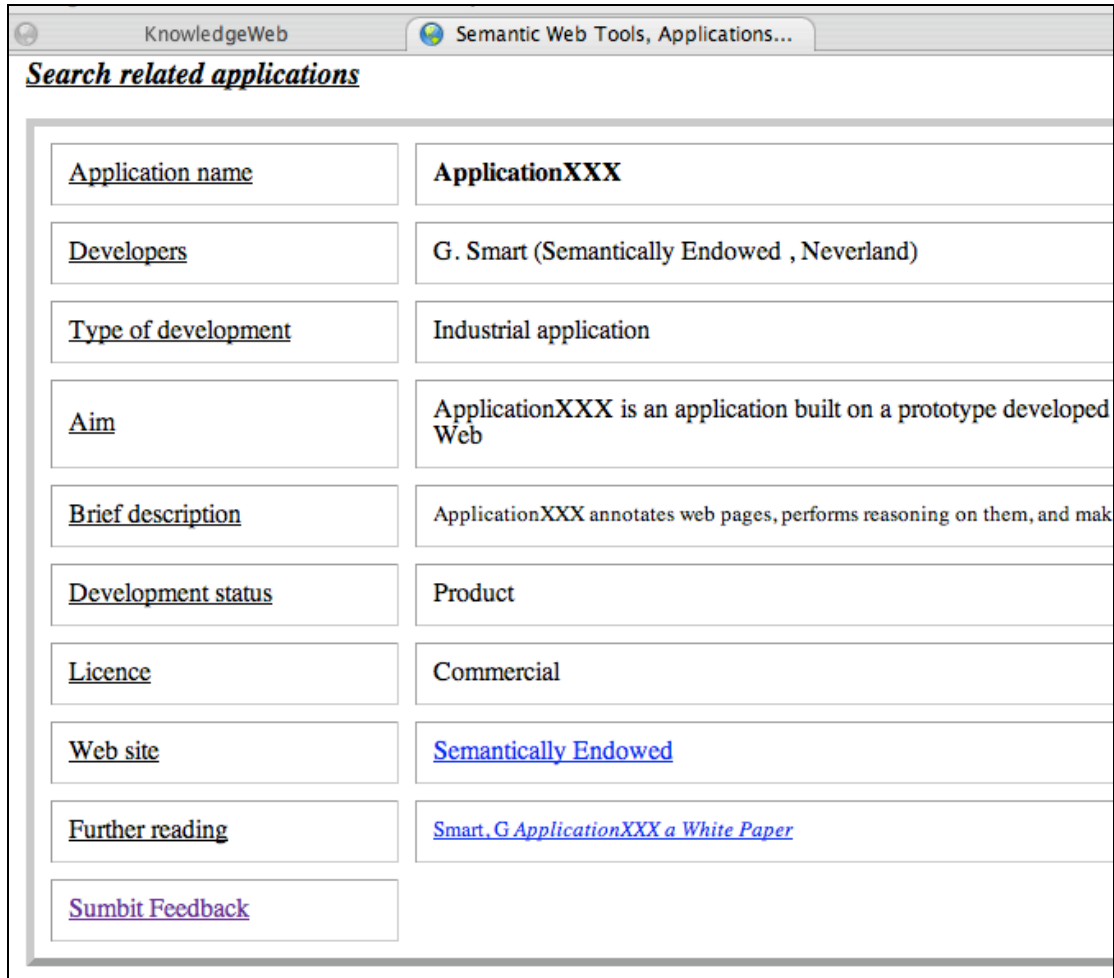


Figure 2: Typical tool description, with the possibility of adding feedback.

ApplicationXXX Feedback Summary

Here is the summary of the information available on the portal about the tool you are providing feedback for:

Brief description	ApplicationXXX annotates web pages, performs reasoning on them, and makes coffee
Development status	Product
Licence	Commercial
Web site	Semantically Endowed
Further reading	Smart_G ApplicationXXX a White Paper
No. of users that commented this tool:	16 (View all)
Avg. experience of user commenting	Semantic Web enthused
Avg. score	4.69

ApplicationXXX Feedback Form

Please fill the form below as accurately as possible:

Your email:

Your password for KWeb community: ([Forgot](#))

Does this tool correspond to its description? Yes No

How do you rate this tool? Lowest 1 2 3 4 5 Highest

Please add a short personal comment on this tool:

Figure 3: User feedback form

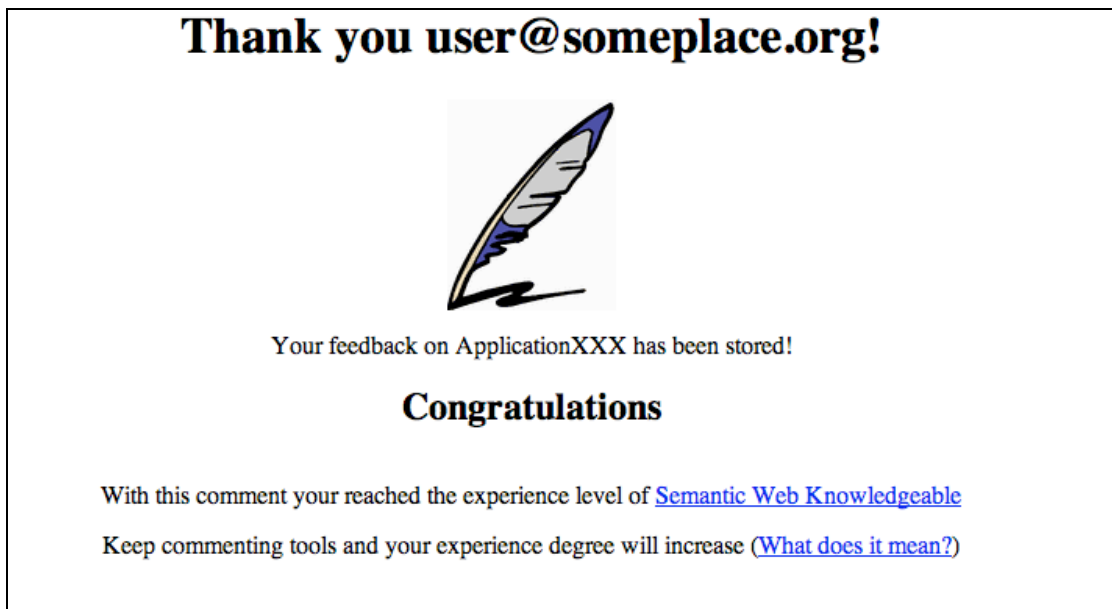


Figure 4: Submitted feedback page.

These developments towards a feedback mechanism represent the only the initial ideas, that will be refined by means of the input by KnowledgeWeb partners, as well as by an analysis of the results of the first instantiation of this mechanism. However, we have already identified some interesting directions to pursue, building upon this existing feedback system. One example would be that, since all tools will be annotated according to the Semantic Web Topic Hierarchy, users providing feedback can then be clustered into areas of interests according the this hierarchy. Therefore a facility to characterize the ideal industrial partner with given expertise or interests can be provided for the portal users.

2.4 Selection board: composition and responsibilities

The function of the ‘selection board’ is to review the tools and applications entered on the repository, and to determine whether any of them should be highlighted as being of a particularly high standard. This selection would then be indicated by the addition of a ‘KnowledgeWeb Recommends’ (or similar) label to the description on the repository. The criteria for selection will be based on the following two sets of factors:

- Feedback from users of the repository on the effectiveness of the software – weighted by the ‘experience level’ of the users concerned.
- Assessment of the software by the members of the selection board – using the same 3 elements as are provided for user feedback (see Section 2.3).

The envisioned selection board would consist of a small number of suitably qualified persons, drawn from within the KnowledgeWeb community. ‘Suitably qualified’ in this context means that they have widely recognized expertise within the area of semantic web research, and whose selection would be generally respected. In order to provide a balanced view on the evaluation of presented software the selection board membership should draw from both academia and industry, whilst retaining the required level of semantic web expertise. Therefore, the KnowledgeWeb Industry Board and industry partners in KnowledgeWeb will be a key source of potential members to the selection board. It is envisioned that the first selection board would consist of three people, one to act as chairperson and two board members. It is anticipated that the actual membership of the selection board will change over time, however, providing the membership criteria remain the same, the function of the board will be upheld.

The selection board is intended to function by having monthly consultations, usually by email or online chat, reviewing any new additions to the repository – as reported to the board by the editorial team. Less frequent face-to-face meetings could then occur co-located with other suitable events, such as KnowledgeWeb assemblies, conferences, etc. These face-to-face meetings would then enable both a general review of current recommendations, and discussions on the performance and organization of the repository in general.

2.5 Sustainability

Clearly, there would be little point in any of the developments related to the repository if we do not make provision for its continuation following the end of the KnowledgeWeb project. In order to support ongoing submissions of software descriptions to the information repository (both during the remainder of the project and subsequently), we are currently finalizing a web-based submission system – enabling authors of semantic web software to submit new or updated descriptions at any time. This system will initially be configured to direct any submitted descriptions to the editorial team, but, if required, can be subsequently re-configured to place submitted descriptions directly into the published repository. This system, in conjunction with the automated user evaluation feedback mechanism described in section 2.3, provides the means for the repository to continue without direct human administration.

Therefore, it is intended that, providing web-hosting facilities can be obtained, the automated submissions and feedback processes can continue, with very little further support - if required. However, the preferred approach would be to continue with both the repository itself, and the small-scale support structures (editorial team and selection board) that ensure the quality and relevance of the repository. Ideally, the responsibility for continued support of the repository could be passed from KnowledgeWeb, following its completion, to another suitable EU-funded network of excellence in the area of semantic web research. Candidates for taking on this responsibility would include the Repository for the European Association for Semantic Web Education, and any new semantic web research projects funded in IST Framework 7, including any follow-on project(s) from KnowledgeWeb itself.

3. The industry technology showcase

Workpackage 1.4 has committed to the task of promoting ontology and semantic web technology to business and industry. One specific aim was to have having a showcase of semantic web tools and applications directly to a business and industry audience. Initial planning determined that any such showcase should seek to promote a range of best-of-breed software products, which would collectively demonstrate to the audience how to employ and benefit from the application of such technologies in their organizations.

Primary effort in this period has involved ongoing collaboration amongst Knowledge Web partners, primarily from WP1.1, WP1.3 and WP1.4, regarding organization of one or more industrial outreach events to promote semantic web technology to industry, with a specific focus on promotion of tools and applications from Knowledge Web.

There were two primary alternatives available to us regarding a technology show for D.1.4.3 v3:

1. One is to combine with existing planned Knowledge Web show(s) - Semantic Web Days, STE, STA. Possibly look to augment the Knowledge Web presence at these events by having a number of SW tools demos.
2. The second is to have a separate technology showcase for Knowledge Web at a suitable venue. Possible identified venues would be SW / AI conferences (e.g. WWW'07, AWIC'07), or more general IT events (e.g. CeBit, Internet World).

Whichever option was chosen, it would be important to co-ordinate with the existing planned events, and with the other event organizers – particularly within Knowledge Web to avoid duplication of effort.

Preliminary agreement has now been reached on organization of a technology showcase tutorial/workshop within the European Semantic Technology Conference (ESTC 2007) event - to be held in Vienna in June 2007. The ESTC event is intend to be the main industrial outreach event linked to ESWC 2007, and so would prove to be an ideal venue for our planned event. Outline planning for the technology showcase would be to organize the event on the basis of demonstrating a number of specific semantic web techniques within a general process of applying semantic technologies within an organization. Such a structure would include the general topic areas of knowledge modeling and ontology creation, data analysis and meta-data annotation, querying and reasoning with knowledge, and applying knowledge within business processes. The individual showcases of technology within this structure could then take the form of a short presentation coupled with a demonstration of the software in action (either live or as a movie). Ideally these demonstrations could utilize a consistent set of data, thus showing how the different tools enrich and extend this data, and then enable the represented knowledge to be utilized and leveraged.

4. Conclusions and future work

In this deliverable we have presented the various new developments regarding the technology promotion tasks ongoing within deliverable 1.4.3. Firstly, we have described the current state and content of the semantic web software repository, including an analysis of the software presented within it. Secondly, we have given details of the key ongoing actions and developments undertaken to improve and enhance the content, form and function of the repository. The main points of these developments are:

- Re-survey of contributors for updated and extended content.
- Automated user-feedback system, to enable user participation and involvement in the repository.
- Creation of two-tier support structures, editorial team and selection board, to ensure the quality of the repository.

Finally, we have presented our initial planning with regard to the industrial showcase event intended for the summer of 2007. This event will operate in conjunction with the enhanced repository in that the tools demonstrated at the showcase are intended to be drawn from those best-of-breed tools that receive a ‘KnowledgeWeb Recommends’ award in the repository.

In the upcoming year we plan to make a number of extensions and enhancements to the semantic web software information repository. Firstly, we will significantly update and extend the content of the repository, by circulating calls for contributions to potential contributors we have identified in the semantic web research area – including members of EU projects, known key developers, and demonstrators at relevant conferences. Secondly, we will finalise implementation of the automated feedback mechanisms described in section 2.3, and deploy these on the repository. In conjunction with these developments, through collaboration with KnowledgeWeb partners, we will complete appointment of the first editorial team and selection board, thus enabling the award of “KnowledgeWeb Recommends” to those outstanding software products described in the repository. Finally, we will seek to promote the repository to all interested parties in research and industry – by various means, such as publication in the KnowledgeWeb Industry Newsletter, flyers at relevant conferences, etc.

In addition to the planned activities above, there are other potential enhancements to the software information repository that may be implemented, dependent on available resources and other practical considerations. The most significant of these would be provision of a semantic search interface to the repository entries, using the different features of the information entries to define queries over metadata descriptions of the entries. Such a semantic search interface would require an ontological model of the classification and description framework described in section 2.2, and make use of the Semantic Web Topic Hierarchy information contained in the software descriptions. This interface would also require a mechanism for automatically annotating software descriptions with relevant metadata, using the classification ontology, Semantic Web Topic Hierarchy and the information contained within the individual software

descriptions. Development of such a search interface, utilising semantic web technologies, would be an important addition to the repository as a *virtual technology show*, both by providing a powerful means to locate software exhibiting specific features, and by providing an immediate example of (some of) the technologies and their benefits.

In a second, related set of actions we will organise and hold the planned technology showcase event. This is preliminarily planned for the educational workshop track of the European Semantic Technology Conference in Vienna in June. This showcase will look to provide an introduction to the application of semantic web technologies in industry, for industry representatives. The showcase will focus on key semantic web topics, such as ontologies, annotation, metadata, reasoning and query answering. For each key topic there will be an overview presentation, a best-of-breed tool demonstration, and a brief discussion session. The showcase as a whole will aim to provide a practical guide to the generic process of applying semantic web technologies within organisations, and at the same time promote the products of KnowledgeWeb-related research.

5. Bibliography

[D1.4.3 v1]: Knud Möller & Ellen Schulten: “Technology Road Show Report”, Deliverable 1.4.3 v1, Knowledge Web

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