

D 1.5.2 Report on joint education and training activities with cooperating networks

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Abstract.

EU-IST Network of Excellence (NoE) IST-2004-507482 KWEB Deliverable D1.5.2 (WP1.5)

This deliverable reports the detailed joint education and training activities with related NoEs and other identified related initiatives, such as SDK (project cluster of SEKT, DIP and KW), SemanticGrid, BIT, and EU efforts.

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Executive Summary

Task 1.5.2 in WP1.5 requires the exploration of the possibilities to form the cooperation with REWERSE, MUSCLE, Aim@Shape, KB2.0 and AgentlinkIII. These projects are Network of Excellences funded by EU under 6th FP. They share similar dissemination efforts in the area of the semantic based knowledge systems.

This deliverable reports the detailed joint education and training activities with above NoEs and other identified related initiatives, such as SDK (project cluster of SEKT, DIP and KW), SemanticGrid, BIT, and EU efforts.

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1. Introduction

One of the main goals of Knowledge Web (in short KW) is to support the transfer process of ontology technology from academia to industry. To realize this goal, three main clusters have been organized:

- Industry cluster: It aims to provide immediate support to industry in taking up Semantic Web technologies. It will standardize languages and interfaces to minimize the interoperability problems. It will provide standard methods and practical guidelines and use case studies to facilitate the industrial applications. It will prepare training courses targeting industrial practitioners. It will establish an Ontology Outreach Authority (OOA) to recommend content for Domain Ontologies.
- Education cluster: It aims to develop high-class education courses in the area of Semantic Web, Web Services, and ontologies. It will educate academia students and train industrial employee to gain such specialities. It will establish the European Association for Semantic Web Education (EASE) to bring together similar efforts and provide distant learning to broader audience.
- **Research cluster**: It aims to coordinate the research capabilities of the leading research groups in Europe to maintain this research area and to provide European industry with important stimuli ensuring its further progress and development.

In order to spread out the excellence and disseminate the results, efforts are allocated to cross fertilize among related R&D areas and interweave with other interrelated projects or initiatives. These form the focuses of Workpackage 1.5, which will provide joint education and training efforts both in academia and industry by jointly organizing workshops, conferences, summer schools, education courses, training course for industry and so on. WP1.5 is coordinating the cross network collaboration throughout these three clusters.

The following sections give the detailed description of the carried-on works. Section 2 shows the identified related initiatives. Section 3 gives the summary of the events happened from Jan 2004 till May 2005. Future plans and further discussions are explained in Section 4.

2. Joint education and training activities with cooperating networks

Task 1.5.2 in WP1.5 requires the exploration of the possibilities to form the cooperation with REWERSE, MUSCLE, Aim@Shape, KB2.0 and AgentlinkIII. These projects are Network of Excellences funded by EU under 6th FP. They share the similar dissemination efforts in the area of the semantic based knowledge systems. In this section, we report the detailed joint education and training activities with the above NoEs and other identified related initiatives.

2.1 REWERSE



REWERSE: Reasoning on the Web with Rules and Semantics

Website: http://rewerse.net/

Focus: Rules, reasoning, semantic web

Project Info: EU funded 6th NoE

Contact: Andrea Kulas ak@webxcerpt.com

Project Factsheet:

- NoE funded by EU 6th FP

- 5M€for 4 years (2004-2007)

- 27 participating universities and companies

- Co-ordinated by Prof. François Bry, Ludwig-Maximilians-Universität München, Germany

2.1.1 Introduction

Reasoning languages for the Web are a newly emerging technology. The difficulty to deal with the variety and amount of Web data calls for inference rules which can conduct automated reasoning. Automated reasoning denotes the software needed for automating reasoning processes with the help of computers including efficient algorithms for performing inference (deriving new knowledge from existing knowledge). REWERSE aims at providing the tangible technological bases for widespread development of smart Web applications. These objectives will be achieved by developing a minimal collection of complementary and interoperable reasoning languages for the Web which will be able to deal with conventional Web data as well as Semantic Web data.

2.1.2 Joint education and training activities

ISWC2005

Event Title: 4th International Semantic Web Conference

When: 7-11 Nov, 2005 Where: Galway, Ireland

Website: http://iswc2005.semanticweb.org/

Organizers: SDK

Cross Network Effort: Rewerse, AgentlinkIII, aceMedia contribute for organizing workshops or participating this event.

KW contribution: KW is contributing for organization of the event via SDK cluster.

Activity Summary: It is one of the major events organized by SDK yearly. ISWC is a major international forum where visionary and state-of-the-art research of all aspects of the Semantic Web is presented. ISWC2005 follows the 1st International Semantic Web Conference (ISWC2002 which was held in Sardinia, Italy, 9-12 June 2002), the 2nd International Semantic Web Conference (ISWC2003 which was held in Florida, USA, 20 - 23 October 2003) and 3rd International Semantic Web Conference (ISWC2004 which was held in Hiroshima, Japan, 7 - 11 November 2004). Tutorials include Semantic Web Enabled Software Engineering (SWESE) and The Semantic Desktop - Next Generation Personal Information Management and Collaboration Infrastructure. Workshops include: Uncertainty Reasoning For the Semantic Web, Ontology Patterns for the Semantic Web, End User Semantic Web Interaction, Knowledge Markup and Semantic Annotation (Semannot2005), Semantic Network Analysis, Semantic Web Case Studies and Best Practices for eBusiness (SWCASE), and The Semantic Web and Policy Workshop (SWPW). Strong support and contributions from REWERSE for the Industry Forum Day at ESWC2005 (30 May 2005).

Semantic Web Days

Event Title: Semantic Web Days – Business Solutions for Tomorrow

When: 6-7 Oct, 2005 Where: Munich, Germany

Website: http://semantic-web-days.net

Organizers: Rewerse, KW

Cross Network Effort: This is one of the major joint events organized together by

Rewerse and KW.

KW contribution: KW is one of the main organizers and organizes two KW workshops on industrial application of semantic web and semantic web services.

Activity Summary: Rewerse and KW are currently organizing Semantic Web Days as one of the major joint industrial training activities. It is a two-day event dedicated to Semantic Web tools and technologies. The aim is to present state of the art ontology- and reasoning-based technologies and promote these Semantic Web technologies further. The Semantic Web Days are focused on areas where the technologies have already been applied successfully and/or promise the best results. This event provides participants not only the opportunity to present business use cases, technologies and/or applications to a professional audience but also help keep professionals up-to-date on the latest developments and hottest trends in the Semantic Web area. Semantic Web Days will feature speakers who have established themselves as experts in the Semantic Web field. The talks have a particular focus on ontology- and reasoning-based technologies and practical business use cases. The main topics of this event will cover:

- Applications based on Semantic Web technologies
- Reasoning on the Web with rules and semantics
- Vocabularies and Ontologies

- Semantic Web Services
- Business Rules and Semantic Web
- Semantic Web-based technologies for facilitating interoperability (data, software)

This event targets professionals from all over Europe and even world wide. In particular, Semantic Web Days are intended for technology monitors and technical consultants, solution software developers, senior researchers, project leaders in companies and academia, technical journalists and the open-source community.

This event begins with keynote speakers and will feature four workshops and an informative panel discussion. Focused industry presentations will give insight into specific business use cases (30 min. each). The workshops will offer a research and a business perspective on the following topics:

- Application-orientated workshop Bioinformatics
- Semantic Web Services
- Semantic Web Applications in Industry
- Application-orientated workshop (such as Location Based Services, Personalized Systems or UML and Semantic Web)

An exhibition area will be provided to give invited companies and project partners the ability to demonstrate industrial best of practice, products, services, software, successful industrial applications or research related topics. This event is an exciting gathering for transferring advanced Semantic Web technology to industry. It will provide an opportunity to showcase the awareness in industrial areas. The date of the event has been carefully selected in order to avoid the conflict with other major events and give the audience the high chance to attend. The location has been selected based on three options due to the easy-of-travel, good local support and local business environment. Rewerse and KW will each organize two workshops with clearly defined focuses. Financially, Rewerse and KW are looking for sponsors to cover certain cost of the event and the participation is fee based. Rewerse and KW will provide some travel support for keynote speakers and workshop invited speakers. Semantic Web Days event is envisioned as the major education and training activity jointly organized by Rewerse and KW in 2005. It aims to provide the training and education opportunity to industrial participants on Semantic Web related technologies.

ESWC2005

Event Title: 2nd European Semantic Web Conference (ESWC2005)

When: May 29 to June 1, 2005

Where: Crete, Greece

Website: http://www.eswc2005.org

Organizers: SDK

Cross Network Effort: Rewerse and AgentlinkIII were contributing for organizing some workshops and participating the event. Muscle, Aim@Shape and KB participated participating this event. All NoEs were jointly organizing one workshop "Framework 6 Project Collaboration for the Future Semantic Web" during this event.

KW contribution: KW was one of the major organizers via SDK cluster.

Activity Summary: ESWC is one of the key activities organized by KW yearly. It aims to present the latest results in research and application in Semantic Web technologies (including knowledge mark-up languages, semantic web services, ontology management and more). ESWC 2005 feature a special industry-oriented event providing European industry with an opportunity to become even more familiar with these technologies. It offers a tutorial program to get up to speed with European and global developments in this exciting new area. ESWC 2005 is co-located with a meeting of the Knowledge Web Network of Excellence. Workshops and meetings of other European Commission 6th Framework Programme projects involved in the semantic web and semantic web technologies will be able to showcase their developments. ESWC 2005 is sponsored by SDK.

ISWC2004

Event Title: 3rd International Semantic Web Conference

When: 7-11 Nov, 2004 Where: Hiroshima, Japan

Website: http://iswc2004.semanticweb.org

Organizers: SDK

Cross Network Effort: Rewerse organizes a workshop there. Other NoEs contribute by

participating this event.

KW contribution: KW was contributing as key sponsor and one of the main organizers.

Activity Summary: ISWC2004 is the major international forum at which research on the Semantic Web is presented. The vision of the Semantic Web is to make the contents of the Web unambiguously computer interpretable, enabling automation of a diversity of tasks currently performed by human beings. The goal of providing semantics and automated reasoning capabilities to the Web draws upon research in a broad range of areas including Artificial Intelligence, Databases, Software Engineering, Distributed Computing and Information Systems. Contributions to date have included languages for semantic annotation of Web documents, automated reasoning capabilities for Web languages, ontologies, query and view languages, semantic translation of Web contents, semantic integration middleware, technologies and principles for building multi-agent and Grid systems, semantic interoperation of programs and devices, technologies and principles for describing, searching and composing Web Services, and more. Workshops include Semantic Web technology for mobile and ubiquitous applications, Trust, Security, and Reputation on the Semantic Web, SW-EL'04: Applications of Semantic Web Technologies for E-Learning, Evaluation of Ontology-based Tools (EON2004), Rules and Rule Markup Languages for the Semantic Web, Semantic Web Services: Preparing to Meet the World of Business Applications, Meaning coordination and negotiation, Knowledge Markup and Semantic Annotation (Semannot2004). Tutorials include XQuery: the query language, its applications and its implementations, Ontology Design Patterns and Problems: Practical Ontology Engineering using Protege-OWL, Tools and Technologies for Semantic Web Services, RDF and Topic Maps Interoperability in Practice, Theory and Practice of RDF Query Processing, and Semantic Web Rules with Ontologies, and their E-Business Applications.

ESWS2004

Event Title: European Semantic Web Symposium 2004

When: June 2004 Where: Crete, Greece

Website: http://www.esws2004.org

Organizers: SDK

Cross Network Effort: NoEs contribute by participating this event. *KW contribution:* KW was contributing as one of the key organizers.

Activity Summary: The vision of the Semantic Web is to enhance today's web via the exploitation of machine-processable meta data. The explicit representation of the semantics of data, accompanied with domain theories (ontologies), will enable a web that provides a qualitatively new level of service. It will weave together an incredibly large network of human knowledge and will complement it with machine processability. Various automated services will help the user achieve goals by accessing and providing information in machine-understandable form. This process may ultimately create extremely knowledgeable systems with various specialized reasoning services systems. Many technologies and methodologies are being developed within Artificial Intelligence, Human Language Technology, Machine Learning, Databases, Software Engineering and Information Systems that can contribute towards the realization of this vision. In the European context, the 6th framework programme has demonstrated the EU's commitment to this technology area and a number of exciting new projects in the Semantic Web area have been launched, aggregated in the SDK project cluster. A tutorial programme, based around these projects, offers the opportunity to get up to speed with European and global developments in this exciting new area. All 6th framework projects, as well as other leading projects, in the Semantic Web area were represented with posters. The conference was co-located with the OntoWeb thematic network seminar and the Knowledge Web network of excellence meeting.

KW Summer School 2005

Event Title: The Third European Summer School on Ontological Engineering and the

Semantic web (SSSW-2005) *When:* 10-16 July 2005 *Where:* Madrid, Spain

Website: http://babage.dia.fi.upm.es/sssw05/

Organizers: KW

Cross Network Effort: Rewerse and AgentlinkIII were contributing to give the invited

lectures during the event.

KW contribution: UPM (KW) and OU (KW) were the main organizers.

Activity Summary: This summer school, presented by leading researchers in the field, is the successor to the well-received schools held in 2003, as part of the activities of the OntoWeb Network Consortium, and in 2004, as part of the activities of the KnowledgeWeb NoE. The school represents an opportunity for postgraduate students to equip themselves with the range of theoretical and practical skills necessary for full engagement with the challenges involved in developing Ontologies and Semantic Web

applications. To ensure a high ratio between tutors and students the school will be limited to 50 participants.

KW Summer School 2004

Event Title: The Second European Summer School on Ontological Engineering and the

Semantic web (SSSW2004) *When:* 18-24 July 2004 *Where:* Madrid, Spain

Website: http://babage.dia.fi.upm.es/sssw04/

Organizers: KW

Cross Network Effort: Rewerse and AgentlinkIII were contributing to give the invited

lectures during the event.

KW contribution: UPM (KW) and OU (KW) were the main organizers.

Activity Summary: KW summer school 2004 has been successfully held in Madrid, Spain in July 18-24. 95% of the participants are PhD students. This summer school is more oriented towards academic profiles attendees.

Rewerse Summer School 2005

Event Title: Summer School on Reasoning Web 2005

When: 25-29 July 2005 Where: Malta, Malta

Website: http://reasoningweb.org

Organizers: University of Malta (Rewerse)

Cross Network Effort: KW and AgentlinkIII were contributing for some tutorials or

invited talks.

KW contribution: KW was contributing by attending this summer school.

Activity Summary: The summer school "Reasoning Web 2005" provides an introduction into Semantic Web methods and issues with a particular focus on reasoning. It is primarily intended for young researchers from industry, PhD students, or postdoc researchers investigating the Semantic Web and related issues.

CECC Workshop

Event Title: CECC workshop on industrial content: Creating eLearning courses for use in

corporate education *When:* April 25, 2005 *Where:* Hannover, Germany

Website: http://www.13s.de/~diederich/cecc

Organizers: L3S (KW) and im-c AG

Cross Network Effort: It was jointly organized and sponsored by KW, Rewerse, Prolearn

(NoE), eduXchange (Strep)

KW contribution: L3S (KW) was one of the key organizers.

Activity Summary: The basic motivation for this event is the increasingly important transfer of learning material created and used in academic settings into the corporate world and its use for professional training. Obviously, this transfer requires an adaptation of the learning material to the requirements in corporate training arrangements. The

workshop focuses on the issues involved, trying to answer how the transfer and conversion process can take place.

Rewerse Exhibition @ KM Europe 2004

Event Title: Rewerse Exhibition @ KM Europe 2004

When: Nov 2004 Where: Amsterdam, NL

Website: http://www.kmeurope.com

Organizers: Rewerse

Cross Network Effort: SDK

KW contribution: UIBK (KW) present KW during this exhibition.

Activity Summary: Rewerse shared the exhibition space with KW and SDK.

2.1.3 Future plan and discussion

In the coming 6 months, Rewerse and KW are focusing on jointly organizing Semantic Web Days. Currently efforts are located for looking for sponsorship, invited industrial speakers, convincing industrial demo and exhibitors. We are also discussing the financial support from both NoEs for this event. When the time is approaching, we need to allocate resources for event registration, social event organization, local organization, transportation, accommodation and dissemination (press release) issues. Furthermore, both networks are exchanging organizing and planned events regularly in order to extend the collaboration space to the maximum extend.

Education and training courses of Rewerse summer school will be submitted to the education joint portal courseware repository named REASE (Repository of the European Association of Semantic Web Education, EASE).. EASE is planned to become an association according to German law, which will host the learning unit repository and will possible become the organizational umbrella for various summer schools. In the context of KnowledgeWeb, a learning unit repository has already been set up successfully and the first learning units are available, which deal with basics on the Semantic Web (RDF, Ontologies, OWL), advanced topics such as human language technology or tools and applications to be used in the Semantic Web. This learning unit repository is available at http://ubp.13s.uni-hannover.de/ubp. Continuing efforts are focusing on drawing an agreement on cooperation between the Networks of Excellence REWERSE and KnowledgeWeb in three areas:

- 1. Using a common learning unit repository to avoid having a duplicate infrastructure
- 2. Sharing the collected learning units between both Networks of Excellence
- 3. Supporting the European Association for Semantic Web Education (EASE) in managing and running the repository.

Sharing the collected units allows for the creation of higher quality curricula. Using EASE in managing and running the repository ensures that the efforts from the educational area of both Networks of Excellence will endure even beyond the end of both projects. Members of Rewerse and KW are involved in the establishment of a new

distributed European Master of Computational Logics, which is supported by Erasmus Mundus (cf. http://www.cl.inf.tu-dresden.de/compulog/prospective/EurMaster.html). Cooperation between EASE and this MSc will further empower the two NoEs, by providing an additional audience with the necessary background for the educational material. Moreover, the MSc students are likely potential human resources for project development by the industrial partners. A collaboration between Rewerse and KW regarding EASE has been formalized in a letter of Intent (see joint deliverable E-D2 (REWERSE) / D-E-D2 (KnowledgeWeb)).

2.2 MUSCLE



MUSCLE: Multimedia Understanding through Semantics, Computation and Learning

Website: http://www.muscle-noe.org/

Focus: multimedia data mining and multimedia machine learning

Project Info: EU 6th NoE from March 1 2004 till March 1 2008 (4 years)

Contact: Bruno Le Dantec (bruno.le_dantec@ercim.org): ERCIM (European Research

Consortium for Informatics and Mathematics)

2.2.1 Introduction

MUSCLE aims at creating and supporting a pan-European Network of Excellence to foster close collaboration between research groups in multimedia data mining on the one hand and machine learning on the other in order to make breakthrough progress towards the following objectives: (i) Harnessing the full potential of machine learning and cross-modal interaction for the (semi) automatic generation of metadata with high semantic content for multimedia documents. (ii) Applying machine learning for the creation of expressive, context-aware, self-learning, and human centred interfaces that will be able to effectively assist users in the exploration of complex and rich multimedia content; (iii) Improving interoperability and exchangeability of heterogeneous and distributed (meta) data enabling data descriptions of highly semantic content (e.g. ontologies, MPEG7 and XML schemata) and inference schemes that can reason about these at the appropriate levels; (iv) Through dissemination, training and industrial liaison, contribute to the distribution and uptake of the technology by relevant end-users such as industry, education, and the service sector.

2.2.2 Joint education and training activities

Workshop @ ESWC 2005

Event Title: ESWC 2005 workshop on "Framework 6 Project Collaboration for the

Future Semantic Web"

When: May 29 – June 1, 2005 Where: Heraklion, Greece

Website: http://www.agentlink.org/workshops/CFSW05/

Organizers: AgentlinkIII

Cross Network Effort: KW, Muscle, Aim@Shape, KB2.0, SDK *KW contribution:* UniLiv (KW) was one of the key organizers

Activity Summary: (Details see Section 2.5.2.)

2. Joint education and training activities with cooperating networks

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2.2.3 Future plan and discussion

Muscle is in machine learning area which is not that close related to the focus of KW, therefore collaboration between these two networks are not as much as those of KW and Rewerse. Muscle is contributing to join some key events (ISWC2004, ISWC2005, ESWS2004, ESWC2005) organized by KW and other NoEs. In the future, we will keep contact and exchange the planned events in order to explore the possibilities for further joint collaboration.

2.3 Aim@Shape



Aim@Shape: Advanced and Innovative Models And Tools for the development of Semantic-based systems for Handling, Acquiring, and Processing Knowledge Embedded in multidimensional digital objects

Website: http://www.aimatshape.net/

Focus: coordinating research on representing, modelling and processing knowledge

related to digital shapes

Project Info: EU 6th NoE from Jan 1 2004 till June 1 2006 (2.5 years)

Contact: Dr Bianca Falcidieno (IMATI-GE, Consiglio Nazionale delle Ricerche, Istituto di Matematica Applicata e Tecnologie, Informatiche - Department of Genova, Italy), Email: falcidieno@ge.imati.cnr.it.

2.3.1 Introduction

The mission of AIM@SHAPE is to advance research in the direction of semantic-based shape representations and semantic-oriented tools to acquire, build, transmit, and process shapes with their associated knowledge. We foresee a new generation of shapes in which knowledge is explicitly represented and, therefore, can be retrieved, processed, shared, and exploited to construct new knowledge. The AIM@SHAPE consortium of 14 excellent research institutions in foundational and applied fields of shape modelling will pursue lasting integration both at the foundational level, by initiating a new Theory of Digital Shapes, and at the component level, by developing a Digital Shape Workbench as a common platform for shape models and software tools. Integrating activities will include the design of common shape ontology and a program for human capital mobility and training. Spreading of excellence activities will include an international forum, an industrial users' group and regular conferences.

2.3.2 Joint education and training activities

ESWS2004

Event Title: 1st Semantic Web Symposium

When: May 2004

Where: Heraklion, GREECE Website: http://www.esws2004.org

Organizers: SDK

Cross Network Effort: see KW contribution

KW contribution: KW is one of the major organizers via SDK cluster

Activity Summary: Aim@Shape was contributing for participation. (Details of this event

see Section 2.1.2)

ESWC2005

2. Joint education and training activities with cooperating networks

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Event Title: European Semantic Web Conference 2005

When: May 30-June 2, 2005 Where: Heraklion, GREECE

Website: http://www.esws2005.com

Organizers: SDK

Cross Network Effort: see KW contribution

KW contribution: KW is one of the major organizers via SDK cluster

Activity Summary: Aim@Shape was contributing for participation and co-organizing a

workshop. (Details of this event see Section 2.1.2)

2.3.3 Future plan and discussion

Aim@Shape is participating in key Semantic Web events (such as ESWS2004 and ESWC2005). More efforts should be allocated by generating good contacts and exchanging information on various events.

2.4 KB2.0



KB2.0: Knowledge Board 2.0

Website: http://www.knowledgeboard.com/

Focus: Knowledge Management

Contact: Anne Jubert (anne.jubert@wanadoo.fr)

2.4.1 Introduction

The goals for KnowledgeBoard 2.0 are to activate and facilitate the European KM community, to further develop it by covering all schools of thought in KM, to extend it to those European regions less well represented today, as well as to other global regions, and to turn the existing KnowledgeBoard into a model and reference for virtual networks offering customised services, collaboration spaces, and a support infrastructure to European research projects, industrial players and other interested parties. The project will support the European Commission and European projects with services, technical support and value-added content and become a sustainable dissemination channel for research results.

2.4.2 Joint education and training activities

KnowledgeBoard 2.0 organizational Meeting *Event Title:* KB2.0 organizational Meeting

When: March 2004 Where: Luxemburg

Website:

Organizers: KB2.0 and EU

Cross Network Effort: various NoEs, SSA and CA projects *KW contribution:* KW was contributing by attending this event.

Activity Summary: KW participated in this event

2.4.3 Future plan and discussion

KW plans to link ourselves to KB portal by providing summary, key results and up to date information about the project. KB will invite KW to open one online conference on Semantic Web and becomes KB portal "project of the month". KW will promote our events via KB portal. In a nutshell, KB should become the key dissemination channel of KW.

2.5 AgentlinkIII



Agentlink III

Website: http://www.agentlink.org/
Focus: Agent and semantic web

Project Info: EU funded 6th NoE from Jan 1 2004 till Jan 1 2005 Contact: Valentina Tamma <V.A.M.Tamma@csc.liv.ac.uk>

2.5.1 Introduction

AgentLink III is the premier Co-ordination Action for Agent Based Computing, funded by the European Commission's 6th Framework Program. Launched on 1st January, 2004, it provides support for the network of European researchers and developers with a common interest in agent technology through events aimed at industry outreach, and standardisation issues, as well as providing support for academic events and providing resources through its portal. AgentLink III acts as a unifying focus for agent-based activities in these different domains. As with AgentLink and AgentLink II, the long-term goal of AgentLink III is to put Europe at the leading edge of international competitiveness in this increasingly important area. The AgentLink III Committee is jointly co-ordinated by the University of Liverpool, and the University of Southampton, but includes full academic members from all over Europe, as well as Industrial and Associate members from around the world.

2.5.2 Joint education and training activities

AgentLinkIII Technical Forum

Event Title: AgentLinkIII Technical Forum on Towards Semantic Web Agents –

Knowledge Web and AgentLink

When: March 1-2, 2005 Where: Ljubljana, Slovenia

Website:

Organizers: AgentlinkIII and KW Cross Network Effort: SDK

KW contribution: KW was contributing via SDK cluster. UniLiv (KW) is one of the

organizers of this event.

Activity Summary: The Semantic Web presents a different perspective in the way distributed knowledge can be viewed, in terms of creation, consumption, dissemination, and management. Concepts can be defined within extensible, open ontologies published using standard protocols with instances and properties being asserted at arbitrary locations across the internet. Multi-Agent Systems, in contrast, provide methodologies for consuming, processing, creating and disseminating both information and knowledge within a distributed framework. Moreover, the construction and co-ordination of

heterogeneous agent communities itself requires complex management of data; the interpretation of which may be ambiguous without semantic structure or reasoning. The aim of the SWA Technical Forum Group - "Towards Semantic Web Agents; Knowledge Web and AgentLink" was to explore the synergy between the two research communities, and to examine how the two largest EU projects supporting research in this area, Knowledge Web and AgentLink, could exploit this. Three half-day sessions were planned as part of the TF meeting, to address three questions:

- * How can Knowledge Web and AgentLink benefit from working together
- * What can the Semantic Web do for Agents
- * What can Agent Technology do for the Semantic Web

Invited talks were given from senior members of the Management Committees of both projects. The aims and structures of each project were presented (by Peter McBurney and Jerome Euzenat), and it was soon apparent that both projects shared similar aims and challenges, in terms of education, industrial outreach, and mapping out the current and future key issues of each project. Education was viewed as important by both communities, and Joerg Diederich presented the EASE archive - European Association for Semantic Web Education - which is a joint project by both Knowledge Web and the REWERSE Network of Excellence to support education across the EU. Alain Leger presented the Industry Area of KW and it was agreed that AgentLInk and KW will support each other on the technology roadmap for Semantic Web Services.

AAAI 2005 First International Symposium on "agents and the semantic web"

Event Title: AAAI 2005 First International Symposium on "agents and the semantic

web"

When: November 3rd-6th, 2005 Where: Arlington, Virginia, USA

Website: http://www.daml.ecs.soton.ac.uk/AAAI-FSS05/

Organizers: AgentlinkIII
Cross Network Effort: KW

KW contribution: UniLiv (KW) was one of the organizers.

Activity Summary: The Semantic Web is based on the idea of dynamic, heterogeneous, shared knowledge sources providing machine-readable content in a similar way to that in which information is shared on the World Wide Web. Integral to this vision was a synergy with Multi-Agent Systems technology; agents could utilize this knowledge to achieve their own goals, producing new knowledge that could be disseminated or published within a common framework. Conversely, the Semantic Web would benefit from autonomous, distributed agents responsible for gathering/aggregating knowledge, reasoning and inferring new facts, identifying and managing inconsistencies, and providing trust and security mechanisms. Previous workshops and discussion fora devoted to this topic (such as the First International Semantic Web Services Symposium) have mainly focused on either the semantic web aspect or the agent aspect of the problem, and have failed to achieve an agreement on the common research issue, leaving several open problems unaddressed. This symposium aims to promote and foster a greater understanding of the synergy between Multi-Agent Systems and the Semantic Web.

Workshop @ ESWC 2005

Event Title: ESWC 2005 workshop on "Framework 6 Project Collaboration for the

Future Semantic Web"

When: May 29 – June 1, 2005 Where: Heraklion, Greece

Website: http://www.agentlink.org/workshops/CFSW05/

Organizers: AgentlinkIII

Cross Network Effort: KW, Muscle, Aim@Shape, KB2.0, SDK

KW contribution: UniLiv (KW) was the key organizer.

Activity Summary: The Semantic Web has risen from the fusion of many research areas; knowledge representation and the generation/management of ontologies, axiomatisation of ontological artifacts and the resulting reasoning mechanisms that can be harnessed to infer new knowledge, inference and the creation of new knowledge through learning and data mining, and of services and autonomous agents both to provide and support the emerging and evolving knowledge. Such knowledge also plays a significant role in the reasoning and manipulation of data in such domains as Multimedia and Geometric Modeling, and can support the formation of communities that share, manage and manipulate community knowledge. In 2004, six large projects commenced across Europe, each funded under European Commissions FP6 First call of the IST Priority under the strategic objective Semantic-based knowledge systems. The objective of this call was to develop semantic-based and context-aware systems to acquire, organise, process, share and use the knowledge embedded in multimedia content. Given that one of the central ideas of the Semnatic Web is that of sharing and reusing knowledge within an open framework, these six projects Knoweldge Web, AIM@SHAPE, REWERSE, MUSCLE, AgentLink III and KnoweldgeBoard 2.0 were encouraged to come together and collaborate by sharing knowledge and an awareness of each others research and technology, to facilitate an understanding and synergy of complementary technologies. The objectives of the Workshop Framework 6 Collaboration for the Future Semantic Web are to provide such a forum where researchers within the European Semantic Web community who are working on synergistic technologies under these projects to come together and share their experiences with other members of these partner Networks. The aims are to explore, for example, how agent technology, using emerging reasoning techniques, can support and manage Semantic Web knowledge; how semantic, geometric models can be represented and used within multimedia contexts, how the creation and refinement of knowledge can be used to support collaboration between on-line communities. By providing a forum where researchers from each of these projects can meet and share their experiences, a greater awareness can be achieved of the different issues that arise in creating, managing, inferring, and exploiting knowledge on the semantic web.

Back in 2004, six large projects commenced across Europe, each funded under European Commissions FP6 First call of the IST Priority under the strategic objective Semantic-based knowledge systems. The objective of the call was to develop semantic-based and context-aware systems to acquire, organize, process, share and use the knowledge embedded in multimedia content. Given that one of the central ideas of the Semantic Web

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The first project to be presented was AceMedia. The aim of this project is to generate added value by introducing, developing and implementing a system based on knowledge assisted, adaptive multimedia content management. The presentation focused on the semantic based, context aware content managed in AceMedia, where autonomous content entities are modelled according to three layers: content, metadata, and intelligence. Knowledge is used to assist in analysis of the multimedia content, where portions of an image are matched to templates, and the annotated. The knowledge structures used in the process are a core ontology based on the Dolce top level ontology, with spatial and temporal extensions, a number of domain ontologies, a multimedia structure ontology. In addition, the mpeg7 xml structure (which it's still at experimental stage) is been extended in order to annotate images with data concerning visual descriptions. Their knowledge structure allow the labelling of images through segments. All metadata, along with original media, is then "reasoned" about, to further identify and merge segments into structures.

The following presentation (by Valentina Tamma (University of Liverpool) and Terry Payne (University of Southampton)) reported on the collaboration activities promoted by AgentLink and Knowledge web. These activities are motivated by the large overlap in themes and synergy existing between the agent and the semantic web communities, and by the potential critical role that can be played by agents in a typical Semantic Web lifecycle, where they can act as both providers and consumers of knowledge services. The presentation outlined the features of multi-agent systems that are most relevant for dynamic, heterogeneous, decentralised, knowledge intensive environments, such as the Semantic Web, and it argued the case for Semantic Web Agents, where they can provide basic functionalities, such as the searching and gathering of knowledge embedded in semantic annotation of web pages, but also house keeping functionalities for the semantic

web.

One of the aims of this workshop was to present work that is potentially of interest to different areas and disciplines. The second talk from the Knowledge Web project had this objective. Mikalai Yatskevic (University of Trento) presented an approach to semantic matching, in which correspondences between concepts are discovered by translating their natural language labels into propositional formulas, and by coding matching into a propositional unsatisfiability problem.

The next set of talks presented the AIM@Shape project, whose objective is the modelling of shape, by associating semantics to geometry structures, through the maintenance of annotations used to define metadata on shapes. The project aims to define common and interoperable knolwedge structures for "structure" domains, in order to avoid ambiguity and enable tasks such as "reconstruction" of images when noise is present. Their methodology is based on a specification of requirements, that are then informally discussed with experts, and that become formal after a refinement process. The project was described through three talks, the fist one concentrating on the aims and the methodology followed. The second one focussed on the content acquisition modelling for shapes, and illustrated the ontology of shapes developed by the project, together with possible applications of this ontological model, such as the use of semantics for searching the shape ontology based content management system that is used to upload the RDF based annotations of 3 dimensional models. The third talk also illustrated an application that is the representation of "Virtual humans", and their animation. Feature extraction and morphological decompositions techniques are used, together with ontologies of shapes, in order to model active humans, as opposed to the representation of static figures. The representation of movements is needed in order to perform reconstruction from noisy scanned data (typically 3D), and to model shapes for animation. semantic information used include low level geometry, but also the representation of qualitative notions such as tall, fat, as well as localised (small nose, big ears) and general anthropomorphic features.

The network of excellence REWERSE focuses on web reasoning languages and their processing, including: the markup of rules, policies, composition and typing, query and evolution. The network gave three presentations. Firstly Nicola Henze (University of Hannover), described the general objectives and activities of REWERSE, including the dissemination activities and technology training, areas in which they are strongly collaborating with Knowledge Web. The second talk presented Ten Theses on Logic and Rule based languages, where it was outlined how the Semantic Web needs to represent different types of rules, that is constructive (similar to views), normative (integrity constraints), and descriptive specifications (ontology). The talk went on discussing other features of rule languages that are deemed useful for the Semantic web, including negation, support to data distribution, event processing, declarative and operational semantics. Finally, the talk presented some of the languages developed by REWERSE, such as Xcerpt - deductive query language for web data, and Xchange - reactive language for event handling and processing, that provide the support argued by these thesis.

The final talk from REWERSE focussed on Personalisation Services that is, the use of semantic web technology to advance the presentation of information. The "Personal Reader Framework is characterised by a simple architecture that allow the combination of personalisation services. The architecture includes a mediator searches for information about the link target and each registered personalisation services that can answer the requests. The personal reader framework is complemented by a personal publication browser that brows REWERSE publications.

The workshop concluded with a presentation by Terry Payne on AgentLink, in which he outlined the different workpackages composing this coordination action project, and the activities they are carrying out. The presentation also illustrated how inter network collaboration can to share of information, experience and processes, as in the case of roadmapping activities, in which AgentLink has longer experience than Knowledge Web. Inter network collaboration can also bring to cross technology applications, with the AgentLink portal powered by the same technology used for the Knowledge Web portal.

Agentlink Summer School 2005

Event Title: EASSS 2005: The seventh agent systems summer school

When: July 17-22, 2005

Where: Utrecht, The Netherlands

Website: http://www.agentlink.org/happenings/easss/2005/index.html

Organizers: AgentlinkIII

Cross Network Effort: KW was contributing for some tutorials and lectures.

KW contribution: UniLiv (KW) was one of the key organizers.

Activity Summary: EASSS05 consists of a mixture of introductory and advanced courses delivered by internationally leading experts in the agent field, and it covers the full range of theoretical and practical aspects of agent-based computing. This year's EASSS offers more courses than ever, including practical programming sessions and a course with robots. EASSS05 is open to anyone from research or industry.

CEEMAS2005

Event Title: Tutorial at 4th international central and eastern European conference on

Multi-agent systems

When: September 15-17, 2005 *Where:* Budapest, Hungary

Website:

Organizers: AgentlinkIII and KW

Cross Network Effort: KW was the co-organizer of this event. *KW contribution:* UniLiv (KW) was one of the organizers.

Activity Summary: AgentlinkIII and KW are organizing Tutorial on Agents and the

semantic web at CEEMAS 2005

EASSS2004

Event Title: 6th European Agent Systems Summer School

When: 5 - 9 July 2004 Where: Liverpool, UK

Website: http://www.agentlink.org/happenings/easss/2004/index.html

Organizers: AgentlinkIII Cross Network Effort: KW

KW contribution: UniLiv (KW) was one of the organizers

Activity Summary: It consists of a mixture of introductory and advanced courses delivered by internationally leading experts in the agent field, and will cover the full range of theoretical and practical aspects of agent-based computing. EASSS'04 is open to anyone from research or industry, both AgentLink members and non-members alike.

EUMAS2004

Event Title: THE SECOND EUROPEAN WORKSHOP ON MULTI-AGENT

SYSTEMS

When: 16-17 December, 2004 Where: Barcelona, Spain

Website: http://www.eumas.org/2004/

Organizers: AgentlinkIII Cross Network Effort: KW

KW contribution: UniLiv (KW) was one of the organizers

Activity Summary: The aim of this second European Workshop on Multi-Agent Systems is to encourage and support activity in the research and development of multi-agent systems, in academic and industrial European efforts. KW was contributing as invited speaker and participation.

AAMAS-2005 INDUSTRY TRACK

Event Title: AAMAS-2005 INDUSTRY TRACK

When: July 25-29 2005

Where: Utrecht, the Netherlands Website: http://www.aamas2005.nl/

Organizers: AgentlinkIII Cross Network Effort: KW

KW contribution: UniLiv (KW) was one of the organizers

Activity Summary: The International Joint Conference on Autonomous Agents and Multi-Agent Systems (AAMAS) is the leading international conference in the theory and practice of software agents. The conference attracts delegates from many different backgrounds; from those developing agent-based software products and services to those working in the theoretical foundations of the discipline. The AAMAS industry track is a special track at the AAMAS conference that runs in parallel to the regular AAMAS scientific track. It features presentations and demonstrations from industrial participants, giving them an opportunity to showcase the state of the art in technology and industrial application of autonomous agents and multi-agent systems. The industry track aims to foster mutually beneficial links between those engaged in foundational scientific research and those working to make autonomous agents and multi-agent systems a commercial reality. This enables industrially-based software agent developers and practitioners to

participate in AAMAS in a meaningful way and to present their technology and applications to both their peers and the associated scientific community.

ATC2

Event Title: Agent Technology Conference

When: Oct 18, 2005

Where: Stockholm, Sweden

Website: http://www.agentlink.org/agents-stockholm

Organizers: AgentlinkIII Cross Network Effort: KW

KW contribution: UniLiv (KW) was one of the organizers

Activity Summary: AgentLink III is organizing its annual business conference ATC Agent Technology Conference, October 18, 2005 in Stockholm, collocated with the Swedish Technical Fair (http://www.tekniskamassan.se/). The event is aimed at commercial organizations interested in exploiting agent technologies to benefit their business. This one-day event will feature several invited speakers, a panel session and demo session. Refer to the following sites for past ATC conferences:

http://www.agentlink.org/agents-barcelona/ http://www.agentlink.org/agents-london/ http://www.agentlink.org/agents-zurich/

2.5.3 Future plan and discussion

AgentlinkIII will submit the EASSS 2005 summer school material to the EASE repository and arrange a formal agreement for EASE in the near future. AgentlinkIII newsletter will have fixed KW area to publish news from KW, such as the general paper of KW, a progress report of KW. Besides Rewerse, AgentlinkIII is identified as one KW's key collaboration partner due to the closely related focuses.

2.6 Other Networks or Projects

Besides above NoEs, there are other identified related initiatives with whom KW collaborates. These initiatives include EU 6th FP funded Integrated Projects (such as DIP, SEKT, aceMedia), the cluster of related EU FP funded Projects (such as SDK), Global Grid Forum (SemanticGrid), university clusters (such as BIT), and European Commission organized events aiming at cross fertilization of related initiatives.

<u>SDK</u>

SDK is a group of three European Commission 6th Framework Programme projects known as SEKT, DIP and Knowledge Web. DIP's objective is to develop and extend Semantic Web and Web Service technologies in order to produce a new technology infrastructure for Semantic Web Services (SWS) - an environment in which different web services can discover and cooperate with each other automatically. DIP's long term mission is to deliver the enormous potential benefits of Semantic Web Services to eWork and eCommerce. SEKT is to develop and exploit the knowledge technologies which underlie Next Generation Knowledge Management. The SEKT strategy is built around the synergy of the complementary know-how of the key European centres of excellence in Ontology and Metadata Technology, Knowledge Discovery and Human Language Technology, a leading commercial exponent of semantic technology, together with a major European ICT organisation. These projects aim to improve world-wide research and standardization in the area of the Semantic Web. The Semantic Web Science Association (SWSA) is a non-profit organisation incorporated in Karlsruhe, Germany for the purpose of promoting and exchanging scholarly work in Semantic Web and related fields throughout the world. SDK has close relationship with SWSA and together jointly organize yearly International Semantic Web Conference (ISWC) and yearly European Semantic Web Conference (ESWC). The Semantic Web Services Initiative (SWSI) is an ad hoc initiative of academic and industrial researchers, many of whom are involved in DARPA and EU funded research projects. Its mission is to create infrastructure that combines Semantic Web and Web Services technologies to enable maximal automation and dynamism in all aspects of Web service provision and use, including (but not limited to) discovery, selection, composition, negotiation, invocation, monitoring and recovery; to coordinate ongoing research initiatives in the Semantic Web Services area; to promote the results of SWSI work to academia and industry. SWSI has close joint collaboration with SDK via DIP with the strong focus on Semantic Web Services based on the joint efforts from Europe and America. For more information on SDK, please visit http://www.sdk-cluster.org.

FOAF Workshop

Event Title: The 1st FOAF (Friend of a Friend) Workshop

When: Sep. 1-2, 2004 Where: Galway, Ireland

Website:

Organizers: SDK, W3C, SWAD Project

Cross Network Effort: KW

KW contribution: DERI Galway (KW) was one of key organizers of this event.

Activity Summary: The 1st FOAF (Friend of a Friend) workshop on FOAF, social networking and the Semantic Web provided a first chance to discuss the combination of perspectives - academic and scientific, engineering, social, legal and business - drawn together by emerging trends around Online Social Networking and the Semantic Web. FOAF is the most used vocabulary on the Semantic Web with now millions of available profile information. While FOAF as a vocabulary is in widespread use on the Semantic Web, there is a lack of interest in the academic community. The workshop aimed to bring together for the first time researchers interested in the effects, analysis and application of social networks on the (Semantic) Web as well as practitioners building applications and infrastructure. The workshop provided a snapshot of current developments, as well as setting a roadmap for the future of both FOAF and social networking - especially in the context of the Semantic Web. The workshop attracted more than 100 participants from all over the world with a very mixed audience - Semantic Web enthusiasts as well as academics and a large number of participants from Silicon Valley companies like Yahoo, Plaxo, and SIXP. The workshop organization combined an academic program, based on refereed papers, as well as breakout sessions, based on the Open Space method. The working groups published their results in the RDFWEB Wiki http://rdfweb.org/topic/FoafGalwayBreakoutSessions). The workshop also resulted in a version the **FOAF** specification news of (http://rdfweb.org/topic/FoafGalwayBreakoutSessions). The goal to reconnect the academic, web community, and industrial world was reached, and the activities that the workshop initiated will influence the Semantic Web in general for some time to come.

EON Ontology Alignment Contest

Event Title: EON Ontology Alignment Contest

When: 2004 **Where:**

Website: http://co4.inrialpes.fr/align/Contest/

Organizers: SDK

Cross Network Effort: KW

KW contribution: INRIA (KW) and VU (KW) were one of the organizers.

Activity Summary: The increasing number of methods available for schema matching/ontology integration suggests the need to establish a consensus for evaluation of these methods. There is now a coordinated international initiative to forge this consensus through two events in 2004:

- The Information Interpretation and Integration Conference (I3CON), to be held at the NIST Performance Metrics for Intelligent Systems (PerMIS) Workshop, is an ontology alignment demonstration competition on the model of the NIST Text Retrieval Conference. This contest focuses on "real-life" test cases and compares algorithm global performance.
- The Ontology Alignment Contest at the 3rd Evaluation of Ontology-based Tools (EON) Workshop (http://km.aifb.uni-karlsruhe.de/ws/eon2004) at the

International Semantic Web Conference (ISWC) targets the characterization of alignment methods with regard to particular ontology features. This contest aims at defining a proper set of benchmark tests for assessing feature-related behavior.

The goal of the EON Ontology Alignment Contest is to provide the participants with a complete test base, including couples of ontologies to align as well as expected results. The test is based on a particular ontology dedicated to a very narrow domain and a number of alternative ontologies of the same domain for which alignments are provided. The ontologies are provided in OWL. The expected alignments are provided in a standard format expressed in RDF/XML and described in http://co4.inrialpes.fr/align/. From these alignments and the ontology to compare, the competitors are able to compute a number of They can use the ontology measures their results. http://www.atl.external.lmco.com/projects/ontology/ for giving their results. The contest is open to anyone able to provide a paper following some simple guidelines with results to these tests. These results are presented at the ISWC 2004 EON workshop, on November 8th, 2004 in Hiroshima (Japan). The goal of the benchmark is to assess the respective merits of some algorithms with respect to precise situations, it is not to single out one winner.

SEKT Summer School 2005

Event Title: The First SEKT Summer School on the Semantic Web (SEKT)

When: 27 June-5 July 2005

Where: Josef Stefan Institute, Ljubljana, Slovenia

Website: http://www.ktschool.org/

Organizers: SEKT

Cross Network Effort: KW was contributing to the organization via SDK cluster for some tutorials or lectures.

some tutorials of feetures.

KW contribution: KW was contributing to the organization via SDK cluster for some tutorials or lectures.

Activity Summary: The first SEKT Summer School on the Semantic Web includes courses on Semantic Web Technologies, Knowledge Discovery in the Semantic Web, Information Extraction, etc.

aceMedia

aceMedia focuses on generating value and benefits to end users, content providers, network operators, and multimedia equipment manufacturers, by introducing, developing and implementing a system based on an innovative concept of knowledge assisted, adaptive multimedia content management, addressing user needs. aceMedia targets knowledge discovery and embedded self-adaptability to enable content to be self organising, self annotating, self associating; more readily searched (faster, more relevant results); and adaptable to user requirements (self reformatting).

European Workshop on the Integration of Knowledge, Semantic and Digital Media Technologies

Event Title: European Workshop on the Integration of Knowledge, Semantic and Digital Media Technologies

When: 25-26 November, 2004

Where: London, UK

Website: http://ewimt.qmul.net

Organizers: aceMedia BUSMAN, SCHEMA

Cross Network Effort: KW

KW contribution: ITI (KW) was one of the key organizers

Activity Summary: This workshop addresses National and European Commission funded IST projects related to integrative research targeting the engineering of new knowledge-based forms of digital media systems. It intends to bring together those forums, projects, institutions and individuals engaged in research aimed at the integration of Knowledge and Content processing technologies, and link them with industrial research and development engineers who could exploit the technology emerging from the projects. The event is sponsored by the EU IST programme and held at the Royal Statistical Society in the city of London.

Multimedia Use Case aceMedia

Event Title: Multimedia Use Case from aceMedia for Knowledge Web WP1

When: 2004 Where: Website:

Activity Summary: This Use Case coming from aceMedia has been presented in WP1 deliverable and will continue to be supported in future deliverables. Motorola, the coordinator of aceMedia, has just became a member of the Knowledge Web Industry Forum

Multimedia and Semantic Web workshop at ESWC2005

Event Title: Multimedia and Semantic Web workshop at ESWC2005

When: 29 May, 2005 Where: Crete, Greece

Website: http://www.eswc2005.org/ and http://www.acemedia.org/ESWC2005_MSW

Organizers: aceMedia
Cross Network Effort: KW

KW contribution: ITI (KW) was one of the key organizers

Activity Summary: This one day workshop on Multimedia and the Semantic Web aims to bring together researchers and practitioners in the multimedia and Semantic Web domains in order to assist in forming bridges between the communities for mutual benefit.

Event Title: Talk at Industry Forum of ESWC2005

When: 29 May, 2005 Where: Crete, Greece

Website: http://www.eswc2005.org/

Organizers: KW with aceMedia participation

Cross Network Effort: KW

KW contribution: ITI (KW) was one of the key organizers

Activity Summary: Paola Hobson from Motorola gave the presentation "Industry requirements for multimedia and the Semantic Web" during the Industry Forum of ESWC2005.

Global Grid Forum Semantic Grid Research Group - Semantic Grid

Website: www.semanticgrid.org
Focus: Grid and Semantic Web

Project Info:

Contact: Carole Goble (carole@cs.man.ac.uk)
David De Roure (dder@ecs.soton.ac.uk)

Semantic Grid is an extension of the current Grid in which information and services are given well-defined meaning, better enabling computers and people to work in cooperation. We believe that this approach is essential to achieve the full richness of the Grid vision, with a high degree of easy-to-use and seamless automation enabling flexible collaborations and computations on a global scale.

GGF Semantic Grid Research Group Meeting

Event Title: The GGF Semantic Grid Research Group Meeting

When:

Where: Korea

Website: http://www.semanticgrid.org

Organizers: SemanticGrid

Cross Network Effort: KW was contributing to the organization of workshop and the

invited speeches.

KW contribution: UoM (KW) was contributing for organization.

Activity Summary: Semantic Grid is the key application area of Semantic Web in Grid Computing. KW and SDK will focus on this direction and exploit the future potential together with SemanticGrid.

Keynote Speech @ ECAI2004

Event Title: Keynote Speech at 16th European Conference on Artificial Intelligence

(ECAI2004).

When: 21-26 August, 2004 Where: Valencia, Spain

Website:

Organizers: SemanticGrid Cross Network Effort: KW

KW contribution: UoM (KW) was invited for the keynote speech.

Activity Summary: Keynote Speech by Carole Goble on: The Semantic Grid: Myth

Busting and Bridge Building

Keynote Speech @ ESWC2005

Event Title: Keynote Speech at 2nd European Semantic Web Conference (ESWC2005)

When: May 29 – June 1, 2005

Where: Crete, Greece

Website: http://www.esws2005.org/

Organizers: SemanticGrid Cross Network Effort: KW

KW contribution: UoM (KW) was invited for the keynote speech.

Activity Summary: Keynote Speech by Dave De Roure on: The Semantic Grid

Keynote Speech @ EGC2005

Event Title: Keynote Speech at European Grid Conference (EGC2005)

When: 14-16 February 2005 *Where:* Amsterdam, NL

Website: http://genias.biz/egc2005/

Organizers: SemanticGrid Cross Network Effort: KW

KW contribution: UoM (KW) was invited for the keynote speech.

Activity Summary: Keynote Speech by Carole Goble on: (Semantic Grid) Services and

Semantic (Grid Services)

Tutorial on OWL W3C Web Ontology Language and Protégé-OWL toolset

Event Title: Tutorial on OWL W3C Web Ontology Language and Protégé-OWL toolset

When: 1-2 Feb 2005 Where: Manchester, UK

Website: http://www.co-ode.org/events/tutorials/ontogrid01-2005/

Organizers: SemanticGrid Cross Network Effort: KW

KW contribution: UoM (KW) was the main organizer.

Activity Summary: Participants include 30 members of EU FP6 Grid projects and other EU Grid/e-Science projects. Some of them are representatives from Coregrid, NextGrid, SIMDAT, Provenance, OntoGrid, AstroGrid, NextGrid, and OGSA-DAI. The event was so successful that a follow-up tutorial for e-Science projects ran on 1-2 March 2005 http://www.co-ode.org/events/tutorials/e-science01-2005/.

Semantic Grid Tutorial, Global Grid Forum 12

Event Title: Tutorial Semantic Grid Tutorial, Global Grid Forum 12

When: 21 September 2004 Where: Brussels, Belgium

Website:

Organizers: SemanticGrid Cross Network Effort: KW

KW contribution: UoM (KW) was organizing this event.

Activity Summary: Participants include 30 members of EU FP6 Grid projects.

SemanticGrid is planning to have the joint KWeb/OntoGrid - GGF Semantic Grid workshop at GGF in Boston in 2005. Carole Goble gave an invited speech at the Summer School on Semantic Grid 2005. Sean Bechhofer attended the European Grid Technology Days in Brussels in June 2005.

PASCAL

PASCAL: Pattern Analysis, Statistical Modelling and Computational Learning

Website: http://www.pascal-network.org

Focus: data mining, information extraction, use of ontologies, modelling

Project info: EU Framework 6 Network of Excellence comprising 14 core sites and 43

other sites, running for 4 years from December 2003

Contact: John Shawe-Taylor (jst@ecs.soton.ac.uk): University of Southampton, UK

The PASCAL Network is divided into a number of programmes, which deal with different aspects such as new initiatives, Special Interest Groups, challenges, dissemination. Programmes are divided into management, spreading, research and integration, and are also divided by time into thematic groups, each spanning 6 months. One of the main contributions of the network is to organise workshops and challenges, in several of which the University of Sheffield (KW) has been one of the lead partners.

EIRD Challenge

Event Title: Assessing ML methodologies to extract implicit relations from documents

Challenge

When: 1 June 2004 – 28 February 2005

Website: http://www.pascal-network.org/Challenges/EIRD/

Organizers: PASCAL Cross Network Effort: KW

KW contribution: University of Sheffield (KW) was the main organizer

Activity Summary: The goal of the proposed challenge is to assess the current situation concerning Machine Learning (ML) algorithms for Information Extraction (IE) from documents, identifying future challenges and to foster additional research in the field. The aim is to:

- 1. Define a methodology for fair comparison of ML algorithms for IE.
- 2. Define a publicly available resource for evaluation that will exist and be used beyond the lifetime of the challenge; such framework will be ML oriented, not IE oriented as so far proposed in other similar evaluations.
- 3. Perform actual tests of different algorithms in controlled situations so to understand what works and what does not and therefore identify new future challenges.

Results of the challenges were discussed in a workshop at the end of the evaluation, and the results constituted material for discussion at the Dagstuhl workshop on Machine Learning for the Semantic Web in February 2005.

Although the PASCAL network covers a wide variety of topics, it is in particular relevant to the areas of Human Language Technology and Ontologies with its work on machine learning for Information Extraction, ontology generation and population, and relation extraction. Some of the work carried out by HLT specialists such as the University of Sheffield has been entered into PASCAL challenges and there has been cross-

dissemination of research activities in the two networks. Future plans lie in further discussions for cooperation and collaboration between the two networks, for example as joint organisation of future workshops and challenges.

<u>BIT</u>

There is no doubt that Information Technology (IT) is the enabling technology in almost all sectors of daily life. Therefore, timely and sustainable investment in IT becomes crucial to prepare and strengthen the partner regions for the growing international economic competition. Recently, the Universities of Bozen/Bolzano, Innsbruck and Trento started to invest substantial resources towards the strengthening of its teaching, research and technology transfer programs in IT. While each single university will certainly become an important competence center for its region, a strong collaboration between the 3 universities has the potential to reach another level of competence and to establish a competence region at the European level. This has been recognized by the three partners and has driven the common initiatives to establish the BIT School. This Memorandum constitutes an agreement which commits the rectors of the three parties to study the feasibility of the BIT School and to do whatever is needed for its establishment. The overall goal of BIT School will be that of coordinating, helping, facilitating and pushing the collaboration and synergy among the three parties. The BIT School will act in order to attract new companies and to enhance collaboration with the existing companies in Tyrol, Trento and South Tyrol.

BIT Invited Talk: Computer-assisted corpus linguistics

Event Title: Computer-assisted corpus linguistics

When: 19.05.2005

Where: Innsbruck, Austria

Website:

Organizers: BIT

Cross Network Effort: UIBK(KW)

KW contribution: UIBK (KW) was the main organizer.

Activity Summary: BIT organizes regular seminars and invited talks among Bozano,

Trento and Innsbruck universities.

BIT joint lecture: Logics for Information Modeling and Access

Event Title: Logics for Information Modeling and Access

When: 18.04.2005

Where: Innsbruck, Austria

Website:

Organizers: BIT

Cross Network Effort: UIBK (KW)

KW contribution: UIBK (KW) was the main organizer.

Activity Summary: Organizing joint seminars and talks is one of the key functions of

BIT. This is the effort between KW and BIT.

EU efforts

European Commission also puts efforts to bring together related EU projects

Unit E2 Network cooperation meeting

Event Title: Unit E2 Network cooperation meeting

When: September 2003 Where: Luxemburg

Website:

Organizers: EU

Cross Network Effort: KW, Muscle, Aim@Shape, KB2.0, AgentlinkIII

KW contribution: KW attended this event.

Activity Summary: This meeting initiated the cooperation efforts cross network

dissemination.

Knowledge and Content Technology research - the past and the future

Event Title: Knowledge and Content Technology research – the past and the future

When: December 2003 Where: Luxemburg

Website:

Organizers: EU
Cross Network Effort:

KW contribution: KW attended this event.

Activity Summary: KW was contributing as the invited speaker there.

This table summarizes the joint events (happened and planned):

Event	When	Where	Main Organizers	Other Organizers	Event Summary
18 th European Summer School in Logic, Language and Information – ESSLLI2006	31.07- 11.08, 2006	Malaga, Spain	INRIA (KW)		KW will contribute for participation.
3 rd International Conference on Service-Oriented Computing – ICSOC2005	12- 16.12.2005	Amsterdam, NL	IBM, Univ. of Tilburg, DERI (KW, DIP)	SDK	It aims to foster cross community scientific excellence and establish a strong link between research and industry.
Communicating European Research 2005	14- 15.11.2005	Brussels, Belgium	EU	SDK	SDK will contribute for participation of workshops and conference
Semantic Network Analysis – Workshop at ISWC2005	7.11.2005	Galway, Ireland	Univ. of Kassel	SDK, SEKT, KW	It aims to bridge the Semantic Web and Social Network communities together.
End user semantic web interaction – Workshop at ISWC2005	7.11.2005	Galway, Ireland	DERI (KW, DIP, SDK)	SDK, Muscle	It aims to discuss on how to bring the power of SW to end users.
ISWC2005: Fourth International Semantic Web Conference	6- 10.11.2005	Galway, Ireland	DERI (KW), SDK	Agentlink, Rewerse, Aim@Shape, KB2.0 Muscle	It is one of the key events organized by KW. Agentlink and Rewerse will contribute for organizing some workshops or sessions or participating this event
2005 AAAI Fall Symposium Series: Agents and the Semantic Web	3-6.11.2005	Arlington, Virginia, USA	AgentlinkIII	UniLiv (KW)	This workshop aims to integrate semantic web with multi agent system technology
3 rd Workshop on Regulatory Ontologies	31.10- 4.11.2005	Larnaca, Cyprus	VUB (KW)	SDK, Rewerse	It aims to discuss the topics on modelling of regulatory and legal knowledge.
On the Move – OTM2005 – to meaningful Internet Systems and Ubiquitous Computing	31.10- 4.11.2005	Agia Napa, Cyprus		VUB (KW) SEKT, SDK	This is a federated event aiming to provide an opportunity for researchers and practitioners to understand the recent developments in ubiquitous computing.
International Conference on ontologies, databases and applications of semantics (ODBASE2005)	31.10- 4.11.2005	Agia Napa, Cyprus	VUB (KW), RMIT University, Australia	KW, SDK, SWSI	It is about the distributed and ubiquity aspects of modern computing systems.
2 nd PhD student symposium in conjunction with OnTheMove	30- 31.10.2005	Agia Napa, Cyprus	University of Augsburg, Germany	FUB (KW)	Free University of Berlinl from KW is one of the event organizers
Sixth International Workshop on Advanced Parallel Processing Technologies (APPT2005)	27- 28.10.2005	Hong Kong, China	National Lab for Parallel and Distributed Processing, China	L3S (KW)	APPT is the biennial international workshop on parallel and distributed processing.
Agent Technology Conference	18.10.2005	Stockholm, Sweden	AgentlinkIIII	SDK, UniLiv (KW)	This event is aimed at commercial organization interested in exploiting agent technologies to benefit their business
Ontology Management: Searching, Selection, Ranking and Segmentation – Kcap2005 Workshop	2.10.2005	Banff, Canada	Univ. of Southampton, UK, Univ. of Sheffield (KW)	SDK	It aims to bring communities of SW, Knowledge Management, information retrieval together for discussion and exchange of knowledge.
2 nd EuroNGI Summer School: Architectures and Services for the Next Generational Internet	26- 20.09.2005	Linz, Austria	EuroNGI (Next Generation Internet)	KW	KW will contribute for participation. The goal of this event is to promote joint research of young scientists in the field of wireless

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			(NoE)		network technologies.
ECCB2005: Workshop in biomedical ontologies and text processing	25.09.2005	Madrid, Spain	Bioinformatics National Institute (INB)	Univ. of Manchester (KW), Univ. of Sheffield (KW)	Bioinformatics is an important application area of applied Semantic Web technology.
First EDOC International workshop on Vocabularies, Ontologies and Rules for the Enterprise (VORTE 2005)	20.09.2005	Enschede, NL	Brandenburg University of Technology at Cottbus (Germany)	Rewerse, KW,	VORTE is the first workshop trying to bring together researchers from semantic web, enterprise modelling, information system, model-driven architecture and business rules areas for the development of conceptual tools for enterprise computing
CEEMAS2005: 4 th International central and eastern European conference on multi-agent systems	15- 17.09.2005	Budapest, Hungary	AgentlinkIII	UniLiv (KW)	KW and Agentlink give the joint tutorial on Agents and the Semantic Web
Font2005 – Foundational Aspects of Ontologies – Workshop at the 28 th German Conference on Artificial Intelligence (KI2005)	11.09.2005	Koblenz, Germany	AIFB (KW, SEKT)	SDK	SDK are contributing as workshop organizers or PC or participants.
1 st International workshop on web service choreography and orchestration for business process management (Workshop at BPM2005)	05.09.2005	Nancy, France	DERI (DIP)	KW, SDK	It aims to address research around methods, concepts, models, language and technologies for choreography and orchestration of web services for business process management
IASW2005: 1 st International IFIP/WG12.5 Working Conference on Industrial Applications of Semantic Web	25- 28.08.2005	Jyvaskyla, Finland	University of Jyvaskyla, Finland	UniLiv (KW)	This conference aims to focus on discussion on industrial applications of Semantic Web. KW will give invited speech and participating in program committee.
Rewerse Summer School 2005 – Reasoning Web 2005	25- 29.07.2005	Malta, Malta	Univ. of Malta (Rewerse)	KW, AgentlinkIII	KW and AgentlinkIII are contributing for tutorials or invited talks.
EASSS2005: The seventh agent systems summer school	17- 22.07.2005	Utrecht, NL	AgentlinkIII	UniLiv (KW)	Joint summer school between AgentlinkIII and KW
Second International Workshop on Peer-to-Peer Management (P2PKM2005)	17.07.2005	San Diego, USA	Univ. of Edinburgh, Univ. of Trento (KW)	SDK	This workshop aims to serve as a forum for people laying interest in P2P, KM, SW, database, pervasive computing, agents and other related fields.
KW Summer School 2005 – 3 rd Summer School on Ontological Eng. And the Semantic Web	10- 16.07.2005	Madrid, Spain	KW	AgentlinkIII, Rewerse	It is the 3 rd summer school on ontoweb and the second summer school of KW. AgentlinkIII and Rewerse are contributing to tutorials or invited talks.
Second International Workshop on Semantic and Dynamic Web Process (SDWP2005)	12- 15.07.2005	Florida, USA	Univ. of Madeira, Portugal	KW	It aims to bring people from different communities to explore the phases of semantic web process
SEKT Summer School 2005	27.06- 05.07.2005	Liubliana, Slovenia	SEKT	SDK, KW, Pascal (NoE)	KW is contributing via SDK cluster for some tutorials or lectures.
AAAI 2005 Workshop on Contexts and Ontologies: Theory, Practice and Applications (C&O2005)	9- 10.07.2005	Pennsylvani a, USA	INRIA (KW), FT(KW), VU (KW)	Stanford Univ., Univ. of Trento (KW), SDK	KW is organizing this event. It aims to bring together people from the context and ontology communities to discuss the approaches for information integration.
W3C Workshop on frameworks for semantics in web services	9- 10.06.2005	Innsbruck, Austria	DERI (DIP, KW)	W3C, KW, SDK	This is the key event jointly organized by W3C and SDK. It aims to establish a generic extensible framework based on Semantic Web technologies for

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					web services.
Formal ontologies meet industry	9- 10.06.2005	Verona, Italy	Univ of Verona	KW	KW Is contributing by participating. This workshop aims at discussion on industrial application of semantic web.
2 nd WSMO Implementation Workshop (WIW) 2005	6-7.06.2005	Innsbruck, Austria	DERI (DIP, KW)	SDK, UIBK(KW)	It aims at the presentation and discussion of different implementation efforts related to WSMO
2 nd European Semantic Web Conference (ESWC2005)	29.05- 01.06.2005	Crete, Greece	SDK	KW, Rewerse, AgentlinkIII	This is one of the key events organized by KW yearly. Agentlink and Rewerse will contribute some workshops. Other NoEs confirmed the participation.
Industrial Forum – ESWC2005	30.05.2005	Crete, Greece	FT(KW)	Rewerse, Agentlink,	One of the major industrial events organized by KW. Rewerse and Agentlink are contributing to organization and participation. This forum is designed to maximize cross fertilization between research and industry.
ESWC2005 workshop on multimedia and the Semantic Web	29.05.2005	Crete, Greece	aceMedia	ITI (KW), SEKT	This workshop aims to bring together researchers and practitioners in the multimedia and semantic web domains to from bridges between these two communities for mutual benefit
ESWC2005: Workshop Semantic Web Case Studies and Best Practices for eBusiness – SWCASE2005	29.05.2005	Crete, Greece	KW	Rewerse	The workshop focuses on question of deploying semantic web technologies in real business applications.
Collaboration for the future semantic web – workshop at ESWC2005	29.05. 2005	Crete, Greece	AgentlinkIII	UniLiv(KW), Rewerse, KB2.0, Aim@Shape, Muscle	This workshop aims to provide a forum for six funded EU projects under the strategic objective "Semantic-based knowledge systems" to meet and share their experiences
BIT Invited Talk: Computer- assisted corpus linguistics	19.05.2005	Innsbruck, Austria	UIBK (KW)	BIT	BIT organizes regular seminars and invited talks among Bozano, Trento and Innsbruck universities.
Workshop on interoperability of web-based educational systems (workshop at www2005)	10- 14.05.2005	Chiba, Japan	W3C	KW	Key educational event organized by KW in WWW2005 conference
Policy Management for the Web (PM4W) – Workshop at WWW2005	10.05.2005	Chiba, Japan	Univ. of Maryland (KW member)	SDK	It aims at realizing open, dynamic and distributed new Web based on policy management
Invited lecture: Distributed computing with space based computing middleware	09- 10.05.2005	Innsbruck, Austria	UIBK(KW)	Technical University of Vienna, Austria	Joint lecture between KW and Technical University of Vienna, FWF Austrian funding agent.
CECC Workshop on Creating eLearning courses for use in corporate education	25.04.2005	Hannover, Germany	L3S (KW)	NoEs Prolearn, Rewerse, project eduXchange	The aim of the event is to transfer academic learning materials into corporate world for professional training.
BIT joint lecture: Logics for Information Modeling and Access	18.04.2005	Innsbruck, Austria	UIBK (KW)	BIT	This is the effort by KW and BIT
SDK Meeting	7-8.04.2005	Grenoble, France	SDK	KW, DIP, SEKT	It covers topics on ontology evolution, ontology mapping and the ontology management tool fair
Ontology Management Tool Fair	7-8.04.2005	Grenoble, France	SDK	KW, DIP, SEKT	This event aims to raise the awareness with SDK about the OM software.
AgentlinkIII Technical Forum	1-2.03.2005	Ljubljana,	AgentlinkIII	UniLiv (KW)	Towards semantic web agents,

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		Slovenia			Knowledge Web and Agentlink
The 2 nd European Workshop on Multi-Agent Systems	16- 17.12.2004	Barcelona, Spain	AgentlinkIII	UniLiv (KW), SEKT	KW is contributing for invited speaker and participation
Agent technology & standardisation activities – the role of AgentLink	29.11.2004	Paris, France	AgentlinkIII	UniLiv (KW)	KW sent representative to attend this event
EWIMT2004 - European workshop on the integration of knowledge, semantic and digital media technologies	25- 26.11.2004	London, UK	BUSMAN, aceMedia, SCHEMA, EU	SDK, Rewerse	SDK is contributing for organization and participation
Exhibition at KM Europe 2004	8- 12.11.2004	Amsterdam, NL	Rewerse	UIBK (KW)	Rewerse shares its exhibition place with KW
OTM2004 Federated Conference – On the Move to meaningful internet systems and ubiquitous computing	25- 29.10.2004	Larnaca, Cyprus		SDK	SDK is contributing for organizing some workshops and participating this event
ODBASE2004 – International conference on ontologies, databases and applications of semantics	25- 29.10.2004	Larnaca, Cyprus	VUB (KW)	SDK	SDK is contributing for organization and participation
IST2004	15- 17.10.2004	Hague, NL	EU	SDK	SDK is contributing as the session invited speaker.
OTM2004 Workshop on Ontologies, Semantics and E- learning (WOSE)	28.10.2004	Larnaca, Cyprus	KW (VUB)	SDK	This event aims to bring together researchers from academia and industry and practitioners to discuss views on how learning systems will realize interoperability by semantic web technologies
The eleventh international conference on AI: methodology, systems, applications and semantic web challenges	2-4.09.2004	Varna, Bulgaria	SDK	UIBK (KW), DERI (KW)	KW is contributing by participating this event and joining the organization efforts.
FOAF Workshop	1-2.09.2004	Galway, Ireland	DERI (KW), W3C	SDK, DIP, SEKT	This is the joint workshop by KW and W3C. This workshop discussed the emerging trends around Online Social Networking and the Semantic Web.
AAMAS 2005 Industry Track	25- 29.07.2005	Utrecht, NL	AgentlinkIII	UniLiv (KW)	KW is contributing to Programme Committee.
6 th European Agent Systems Summer School	5-9.07.2004	Liverpool, UK	AgentlinkIII	SDK	SDK is contributing for tutorials or invited lectures.
Opennet – X Meeting	04.07.2004	USA	FIPA	Agentlink, UniLiv (KW)	KW activities has been presented during this meeting (which is co- located with the DAML PI meeting)
EON Ontology Alignment Contest	2004	INRIA (KW)		SDK	SDK is contributing for organization. This event aims to define a proper set of benchmark tests for assessing feature-related behaviour.

4. Discussion

This report gives the detailed overview of the education and training activities by KW with cross related NoEs and other related initiatives. From the beginning of 2004 till end of 2006, KW and other NoEs has organized, participated and planned 14 international conferences, 30 international workshops, 6 summer schools, 5 industrial events and 4 invited talks, lectures and seminars.

KW has established cross web link with some NoEs via each website (such as Rewerse and AgentlinkIII). KW and Rewerse share the dissemination channel by having the joint flyers to distribute and they have signed a 'letter of intent' to form up the formal collaboration in the education area regarding the European Association for Semantic Web Association

Currently good contact has been established with these NoEs. Next steps will be:

- Regularly exchange planned events to identify the possibility for the future collaboration of joint events.
- Formalizing the joint collaboration via EASE, such as signing 'letter of intent' or joint agreement.

Appendix

Knowledge Web Key Activities:

ISWC2005

Event Title: 4th International Semantic Web Conference

When: 7-11 Nov, 2005 Where: Galway, Ireland

Website: http://iswc2005.semanticweb.org/

Activity Summary: ISWC is a major international forum where visionary and state-of-the-art research of all aspects of the Semantic Web is presented. ISWC2005 follows the 1st International Semantic Web Conference (ISWC2002 which was held in Sardinia, Italy, 9-12 June 2002), the 2nd International Semantic Web Conference (ISWC2003 which was held in Florida, USA, 20 - 23 October 2003) and 3rd International Semantic Web Conference (ISWC2004 which was held in Hiroshima, Japan, 7 - 11 November 2004). Tutorials include Semantic Web Enabled Software Engineering (SWESE) and The Semantic Desktop - Next Generation Personal Information Management and Collaboration Infrastructure. Workshops include: Uncertainty Reasoning For the Semantic Web, Ontology Patterns for the Semantic Web, End User Semantic Web Interaction, Knowledge Markup and Semantic Annotation (Semannot2005), Semantic Network Analysis, Semantic Web Case Studies and Best Practices for eBusiness (SWCASE), and The Semantic Web and Policy Workshop (SWPW). Strong support and contributions from REWERSE for the Industry Forum Day at ESWC2005 (30 May 2005).

ESWC2005

Event Title: 2nd European Semantic Web Conference (ESWC2005)

When: May 29 to June 1, 2005

Where: Crete, Greece

Website: http://www.eswc2005.org

Activity Summary: ESWC aims to present the latest results in research and application in Semantic Web technologies (including knowledge mark-up languages, semantic web services, ontology management and more). It features a special industry-oriented event providing European industry with an opportunity to become even more familiar with these technologies. It offers a tutorial program to get up to speed with European and global developments in this exciting new area.

ISWC2004

Event Title: 3rd International Semantic Web Conference

When: 7-11 Nov, 2004 Where: Hiroshima, Japan

Website: http://iswc2004.semanticweb.org

Activity Summary: ISWC2004 is the major international forum at which research on the Semantic Web is presented. The vision of the Semantic Web is to make the contents of

the Web unambiguously computer interpretable, enabling automation of a diversity of tasks currently performed by human beings. The goal of providing semantics and automated reasoning capabilities to the Web draws upon research in a broad range of areas including Artificial Intelligence, Databases, Software Engineering, Distributed Computing and Information Systems. Contributions to date have included languages for semantic annotation of Web documents, automated reasoning capabilities for Web languages, ontologies, query and view languages, semantic translation of Web contents, semantic integration middleware, technologies and principles for building multi-agent and Grid systems, semantic interoperation of programs and devices, technologies and principles for describing, searching and composing Web Services, and more. Workshops include Semantic Web technology for mobile and ubiquitous applications, Trust, Security, and Reputation on the Semantic Web, SW-EL'04: Applications of Semantic Web Technologies for E-Learning, Evaluation of Ontology-based Tools (EON2004), Rules and Rule Markup Languages for the Semantic Web, Semantic Web Services: Preparing to Meet the World of Business Applications, Meaning coordination and negotiation, Knowledge Markup and Semantic Annotation (Semannot2004). Tutorials include XQuery: the query language, its applications and its implementations, Ontology Design Patterns and Problems: Practical Ontology Engineering using Protege-OWL, Tools and Technologies for Semantic Web Services, RDF and Topic Maps Interoperability in Practice, Theory and Practice of RDF Ouery Processing, and Semantic Web Rules with Ontologies, and their E-Business Applications.

ESWS2004

Event Title: European Semantic Web Symposium 2004

When: June 2004 Where: Crete, Greece

Website: http://www.esws2004.org

Activity Summary: The vision of the Semantic Web is to enhance today's web via the exploitation of machine-processable meta data. The explicit representation of the semantics of data, accompanied with domain theories (ontologies), will enable a web that provides a qualitatively new level of service. It will weave together an incredibly large network of human knowledge and will complement it with machine processability. Various automated services will help the user achieve goals by accessing and providing information in machine-understandable form. This process may ultimately create extremely knowledgeable systems with various specialized reasoning services systems. Many technologies and methodologies are being developed within Artificial Intelligence, Human Language Technology, Machine Learning, Databases, Software Engineering and Information Systems that can contribute towards the realization of this vision. In the European context, the 6th framework programme has demonstrated the EU's commitment to this technology area and a number of exciting new projects in the Semantic Web area have been launched, aggregated in the SDK project cluster. A tutorial programme, based around these projects, offers the opportunity to get up to speed with European and global developments in this exciting new area. All 6th framework projects, as well as other leading projects, in the Semantic Web area will be represented with posters. The conference will be co-located with the OntoWeb thematic network seminar and the Knowledge Web network of excellence meeting.

KW Summer School 2005

Event Title: The Third European Summer School on Ontological Engineering and the

Semantic web (SSSW-2005) *When:* 10-16 July 2005 *Where:* Madrid, Spain

Website: http://babage.dia.fi.upm.es/sssw05/

Activity Summary: This summer school, presented by leading researchers in the field, is the successor to the well-received schools held in 2003, as part of the activities of the OntoWeb Network Consortium, and in 2004, as part of the activities of the KnowledgeWeb NoE. The school represents an opportunity for postgraduate students to equip themselves with the range of theoretical and practical skills necessary for full engagement with the challenges involved in developing Ontologies and Semantic Web applications. To ensure a high ratio between tutors and students the school will be limited to 50 participants.

KW Summer School 2004

Event Title: The Second European Summer School on Ontological Engineering and the

Semantic web (SSSW2004) *When:* 18-24 July 2004 *Where:* Madrid, Spain

Website: http://babage.dia.fi.upm.es/sssw04/

Activity Summary: KW summer school 2004 has been successfully held in Madrid, Spain in July 18-24. 95% of the participants are PhD students. This summer school is more oriented towards academic profiles attendees.