WonderWeb Dissemination and Use Plan

WonderWeb: Ontology Infrastructure for the Semantic Web

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WonderWeb Dissemination Approach

The main objectives of the WonderWeb project are:

- The development of a **family of ontology languages** that extend existing Web standards while maintaining maximum backwards compatibility.

- The development of the **comprehensive technical infrastructure and tool support** that will be required both within the project and by real world applications in the SemanticWeb.

- The development of a **set of foundational ontologies** covering a wide range of application domains.

- The development of a **framework of techniques and methodologies** that will provide an engineering approach to the building and use of ontologies.

The preliminary mechanism for dissemination for the WonderWeb project will be through research publications, international events, international presentations and education (courses on Semantic Web related topics). In addition, resources such as the project web site (http://wonderweb.semanticweb.org) will be used to publish results and recommendations.

Members of the consortium are closely involved with standardisation efforts such as the W3C’s WebOnt\(^1\) committee and this will provide a further route for dissemination of the project’s results and findings.

The Industrial Advisory Board provides links between the consortium members and key representatives for the World’s leading providers and users of Web technology. Project workshops targeted at the Industrial Board are planned. Links to related projects (such as OntoWeb\(^2\)) will be maintained, as will links to related work in the US such as that being undertaken in the DARPA DAML programme.

More detailed dissemination plans for each individual partner are provided in the following sections.

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\(^1\) [http://www.w3.org/2001/sw/WebOnt](http://www.w3.org/2001/sw/WebOnt)

\(^2\) [http://www.ontoweb.org](http://www.ontoweb.org)
University of Manchester

Partner role and nature of intended results. The Information Management Group, which forms part of the Department of Computer Science at the University of Manchester, is a world leader in the areas of data and knowledge management, ontologies, the Semantic Web and grid computing. The main results from Wonderweb will be the development of technical infrastructure and tool support for the Semantic Web. In particular, this will consist in the development of a family of ontology languages, in the linking of existing tools and services to the KAON-Server, and in the extension of reasoning support services.

Target groups for dissemination and use. The dissemination strategy aims mainly at research publications, international events, international presentations and education (courses on Semantic Web related topics).

Dissemination actions up to Milestone 2 (month 6).

Publications:

Edited Works:

Organisational Activities
- Ian Horrocks. PC chair of ISWC 2002; PC chair of DL 2002; PC member of KR 2002; PC member of WWW 2002; PC member of FLAIRS 2002; PC member of ECAI 2002; PC member of Tableaux 2002; PC member of KI 2002
o Ian Horrocks. Member of the ETAI (Electronic Transactions on Artificial Intelligence) editorial committee for the areas of "Concept-based Knowledge Representation" and "The Semantic Web".

o Ian Horrocks. Member of the Joint EU/US Agent Markup Language Committee.

o Ian Horrocks. Secretary of the Semantic Web Science Foundation


Presentations & Talks:
o Invited talks at EDBT 2002, AISB 2002, WES/CAiSE 2002 (Ian Horrocks)
o Seminar at HP labs Bristol, 27 Feb 2002

Meetings:
o W3C Web Ontology working group meeting, New Jersey, USA, 14-15 January 2002
o DL Implementation Workshop, Manchester UK, 28-29 January 2002
o Rules Workshop, Dagstuhl, Germany, 4-8 February 2002
o W3C Web Ontology working group meeting, Amsterdam, Netherlands, 8-9 April 2002
o Wonderweb Project Meeting, Karlsruhe, Germany, 21st - 22nd May 2002

Future dissemination activities

Organisational:
o WWW2003 Vice Chair for Semantic Web

Presentations:
o Invited talks at CADE 2002, NETTAB 2002, XML UK meeting
o DL tutorial at ECAI 2002, Lyon, 23 June 2002
o Seminar at University of Edinburgh, 22 August 2002

Accepted Papers
o Ian Horrocks and Ulrike Sattler. Optimised Reasoning for SHIQ, European Conference on Artificial Intelligence, ECAI'02, 2002

Submitted Papers
Planned Papers

- Relevant papers will be submitted to a number of upcoming conferences and workshops, including IJCAI 2003 and ISWC 2003.
Free University of Amsterdam

Partner role and intended results: VUA is a university leading in semantic web research. The specific role of the VUA in the WonderWeb project is a contribution to the further development of a standard ontology language for the World Wide Web and the development of advanced techniques for ontology management such as Ontology mapping, versioning, refinement and modularization.

Target groups for dissemination and use: As a university institution, the main target groups for our dissemination and use activities are: (1) the relevant international research communities in academia and industry; (2) the students (Master as well as PhD degree) we teach; (3) companies with which we have collaborative relationships in applied research and/or business education. As in all our projects, this is achieved by international publications, presentations and talks; courses and degree work in our regular curricula; and by bilateral and multilateral project collaborations.

Dissemination actions up to Milestone 2 (month 6).

Organization of Related Workshops

- Workshop on Ontologies and Semantic Interoperability at the European Conference on Artificial Intelligence (ECAI-02) in Lyon, France (Heiner Stuckenschmidt)
- Workshop on Knowledge Translation for the Semantic Web at the European Conference on Artificial Intelligence (ECAI-02) in Lyon, France (Michel Klein)
- Workshop on Ontologies and Multi-Agent Systems at the International Conference on Knowledge Acquisition, Modeling and Management and (Heiner Stuckenschmidt)

Book, Journal and Magazine Publications

- Peter Patel-Schneider, Ian Horrocks, Frank van Harmelen. Reviewing the Design of DAML+OIL: An Ontology Language for the Semantic Web (AAAI'02)
- Jeen Broekstra, Arjohn Kampman, Frank van Harmelen. Sesame: A Generic Architecture for Storing and Querying RDF and RDF Schema (ISWC'02)
- Frank van Harmelen. The complexity of the Web ontology language (IEEE-IS'02)
- Frank van Harmelen. How the Semantic Web will change KR: challenges and opportunities for a new research agenda (KER'02)
Other activities

- OntoWeb Thematic Network on the use of Ontologies for Knowledge Management and electronic commerce (Dieter Fensel)
- OntoWeb Special Interest Group on Ontology Language Standardization (Frank van Harmelen)
- Tutorial on the Semantic Web at the first international Conference on Knowledge Capture, Victoria Canada (Dieter Fensel, Heiner Stuckenschmidt, Frank van Harmelen)
- Invited Talk on Semantic Web Languages at the Werkgemeenschap Informatiewetenschap, Utrecht, The Netherlands (Heiner Stuckenschmidt)

Teaching Activities

- Advanced Course 'Semantic Web' of the Dutch Graduate School SIKS (Frank van Harmelen, Dieter Fensel, Heiner Stuckenschmidt)
- Master Course 'Web-based Knowledge Representation' (Frank van Harmelen, Marta Sabou, Michel Klein, Jeen Broekstra)

Dissemination to Practitioners

- W3C Semantic Web Working Group (Frank van Harmelen)

Planned future dissemination activities

- Master Course 'Intelligent Web Applications' (Frank van Harmelen, Heiner Stuckenschmidt)
- Tutorial on the Semantic Web at the Conference on Professional Knowledge Management 2003 (Steffen Staab, Heiner Stuckenschmidt)
- Special Track 'Agents and Ontologies' at Flairs 2003 (Heiner Stuckenschmidt)
- Book on Semantic Web Technologies and Applications (Dieter Fensel, Heiner Stuckenschmidt)
LADSEB-CNR

**Partner role and intended results.** The Conceptual Modelling and Knowledge Engineering group at LADSEB-CNR has a leading role in ontology design, especially for what concerns well-founded methodologies for ontology development grounded on formal philosophical and linguistic theories. Its role in WonderWeb is to develop a library of foundational ontologies as described in WP3, as well as methodological guidelines for the design of well-founded general ontologies. The group will also participate to content standardization activities.

**Target groups for dissemination and use.** Due to its strongly interdisciplinary approach and to the generality of the problems addressed, the target groups extend far beyond those specifically interested to the WonderWeb project. In particular, besides the relevant research communities – in academia and industry – involved in Semantic Web technologies, other target groups are the communities working on database (and information systems) conceptual modelling, object-oriented conceptual modelling, qualitative reasoning, natural language semantics.

**Dissemination actions up to Milestone 2 (month 6).**

**Accepted international publications:**


**Presentations/talks:**

- Presentation of WonderWeb activities on foundational ontologies at the meeting of the OntoWeb SIG on Ontology-based Content Standards (Chia, I, 14 June 2002, Nicola Guarino)
o Invited talk at PhD course in Computer Science organized by the Universities of Brescia and Milano (14 January 2002, Brescia, I, Nicola Guarino)

**Other Activities**

o LADSEB-CNR is leading a workpackage (and a SIG) on ontology-based content standards in the OntoWeb thematic network

o LADSEB-CNR is also a subcontractor of Eureka project E! 2235 IKF (Information and Knowledge Fusion, where some of the results of their work on foundational ontologies will be used.

**Planned future dissemination activities**

o Further scientific publications and presentations, including:
  * a tutorial on *Ontologies and the Semantic Web* at the AgentLink Summer School (with Asun Gomez Perez, Italy, July 2002)
  * a tutorial on *Formal Ontological Analysis and Conceptual Modelling* at the EKAW-02 conference (with Aldo Gangemi, Spain, October 2002)
  * a tutorial on *Ontology-driven Conceptual Modelling* at the 21st Int. Conf. on Conceptual Modelling (ER2002) (with Luc Schneider, Finland, October 2002)
  * an invited presentation at the meeting of the *CEN/ISSS eCommerce workshop* (Italy, October 2002)
  * an invited presentation at the workshop on *Ontology for Biology* (Germany, November 2002)

o Exploitation of the DOLCE ontology by interested users: expressions of interest in using the preliminary foundational ontology developed at LADSEB-CNR have been made by the University of Amsterdam, OntologyWorks Inc, the FAO project on Agricultural Ontology Service, the GOL project at the University of Leipzig, the WordNet group at the University of Princeton, the CI/DOC-CRM initiative on museum data representation.

o Research education: on PhD student just started his work partly within WonderWeb, in co-tutorship with Imperial College. At least one other PhD student is planned for the future.

o Exchanges with other EU-IST projects (forthcoming)
Institute AIFB, University of Karlsruhe

Partner role and nature of intended results. The Institute AIFB from the University of Karlsruhe is a research institution leading in the area of Semantic Web, Knowledge Management and Ontologies. Main result in Wonderweb is the development of technical infrastructure and tool support. The main organisational unit and infrastructure kernel is KAON-Server connecting and adapting existing clients.

Target groups for dissemination and use. The dissemination strategy aims mainly at research publications, international events, international presentations and education (courses on Semantic Web related topics).

Dissemination actions up to Milestone 2

Publications


Organisational Activities

- Metadata Chair; S. Staab, 1st International Semantic Web Conference (ISWC-2002), Sardinia, Italy, 10-12 June, 2002
Presentations & Talks

- Staab, S., “Ontology Engineering”, Fifth International Baltic Conference on DB and IS, Tallinn, Estonia, June 3-6, 2002
- Staab, S., “SEAL – Tying Up Information Integration and Web Site Management by Ontologies”, IRST Trento, 27 March 2002

Meetings

- Wonderweb Project Meeting, Karlsruhe, Germany, 21st – 22nd May 2002

Future dissemination activities

Editorials


Presentations


Accepted Papers


Submitted Papers


Planned Papers, Tutorials


o Tutorial; R. Studer, R. Volz, “Ontologies and Semantic Web”, *International Conference on Ontologies, Databases and Applications of Semantics*, October 28 - November 1, 2002, University of California, Irvine, USA

o Papers on views in the Semantic Web to Database Conference