

(Part of)

Chapter 8

Conclusion and Outlook

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What is the Problem?

- Consider a typical web

The screenshot shows the homepage of the WWW 2002 conference website. At the top, there's a banner with the URL <http://www2002.org>, the title "WWW 2002", and the subtitle "THE ELEVENTH INTERNATIONAL WORLD WIDE WEB CONFERENCE". Below the banner, there's a logo for "WWW 2002 HAWAII" featuring a stylized figure. The main content area includes a sidebar with links like "Conference Proceedings", "Call for Participation Program", "Registration Information", "Hotel Accommodation", "Conference Committee", "Sponsorship Exhibition Opportunities", "Volunteer Information", "Information about Hawaii", and "Previous & Future WWW Conferences". The main content area features a yellow banner with the text "1 LOCATION. 5 DAYS. LEARN. INTERACT.". It also lists "Registered participants coming from:" followed by a list of countries. A "REGISTER NOW" button is present. Below this, there's a section about the conference location in Honolulu, Hawaii, and a list of featured speakers.

http://
www2002.org

WWW 2002

THE ELEVENTH INTERNATIONAL
WORLD WIDE WEB CONFERENCE

Sheraton Waikiki Hotel
Honolulu, Hawaii, USA
7-11 May 2002

1 LOCATION. 5 DAYS. LEARN. INTERACT.

CONFERENCE ORGANIZERS

International World Wide Web Conference Committee

Conference Proceedings

Call for Participation Program

Registration Information

Hotel Accommodation

Conference Committee

Sponsorship Exhibition Opportunities

Volunteer Information

Information about Hawaii

Previous & Future WWW Conferences

Registered participants coming from:

Australia · Canada · Chile · Denmark · France · Germany · Ghana · Hong Kong · India · Italy · Ireland · Japan · Malta · New Zealand · The Netherlands · Norway · Singapore · Switzerland · The United States · Vietnam · Zambia

REGISTER NOW

On 7-11 May 2002, Honolulu, Hawaii will provide the backdrop for The Eleventh International World Wide Web Conference. This prestigious series of the International World Wide Web Conference Committee (IWC²) attracts participants from around the world, and it provides a public forum for the World Wide Web Consortium (W3C) through the annual W3C track.

The conference is being organized by the International World Wide Web Conference Committee (IWC²), the University of Hawaii and the Pacific Telecommunications Council (PTC).

FEATURED SPEAKERS (CONFIRMED)

Tim Berners-Lee, inventor of the World Wide Web and Director of the W3C who now holds the 3Com Founders chair at the Laboratory for Computer Science (LCS) at the Massachusetts Institute of Technology (MIT).

Richard A. DeMillo, vice president and chief technology officer for Hewlett-Packard Company.

Ian Foster, guru of "Grid Computing", associate

McArthur Prize Winner,

- Markup consists of:
 - rendering information (e.g., font size and colour)
 - Hyper-links to related content
- Semantic content is accessible to humans but not (easily) to computers...

What information can we see...

WWW2002

The eleventh international world wide web conference

Sheraton waikiki hotel

Honolulu, hawaii, USA

7-11 may 2002

1 location 5 days learn interact

Registered participants coming from

australia, canada, chile denmark, france, germany, ghana, hong kong,
india, ireland, italy, japan, malta, new zealand, the netherlands,
norway, singapore, switzerland, the united kingdom, the united states,
vietnam, zaire

Register now

On the 7th May Honolulu will provide the backdrop of the eleventh
international world wide web conference. This prestigious event ...

Speakers confirmed

Tim bernes-lee

Tim is the well known inventor of the Web, ...

Ian Foster

Ian is the pioneer of the Grid, the next generation internet ...

What information can a machine see...

10

A decorative horizontal bar at the bottom of the page featuring a repeating pattern of blue diamond shapes and squares.

A decorative horizontal border at the bottom of the page, consisting of a repeating pattern of blue diamond, square, and circle shapes.



A decorative horizontal bar consisting of a repeating pattern of blue diamond shapes, circles, and other abstract symbols, such as squares and stars, arranged in a grid-like fashion.

Digitized by srujanika@gmail.com

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III

Solution: XML markup with “meaningful” tags?

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Will the Semantic Web Succeed?

Key Questions

- Where will the ontologies come from?
- Where will the semantic markup come from?
- Where will the tools come from?
- How should one deal with a multitude of ontologies?
- Where can we expect the first success stories?

Where Will the Ontologies Come From?

- Some large ontologies are becoming de facto standards
 - WordNet
 - NCIBI's cancer ontology
- Many small ontologies
 - are hand-created (e.g. RosettaNet) or
 - Created automatically through machine learning, natural language analysis and from legacy sources (e.g. data schemas)

Where Will the Semantic Markup Come From?

- Clearly not by hand
- Tools for new information resources
- Natural language techniques, borrowing from legacy sources for old resources

Where Will the Tools Come From?

- Large variety of tools already exists
 - Editors, storage, querying and inferencing, visualization, versioning
- Mostly developed in academic domain
- ... but taken up in the commercial sector
 - Highly innovative startups

How Should one Deal With a Multitude of Ontologies?

- A big research question, still open
 - A potential bottleneck
- Various approaches currently tested
 - Negotiation
 - Machine learning
 - Linguistic analysis

Promising Areas for Initial Successes

- Knowledge Management
 - ... because of central authority
- E-Science
 - Use ontologies, are informed and enthusiastic users of new technology
- E-Commerce probably later
 - Problems with privacy, security and trust