

W3C und eGovernment

Expertenforum BDIP 4.04.2011

Clemens Weins / Felix Sasaki

DFKI

TEIL 1: W3C IM ÜBERBLICK

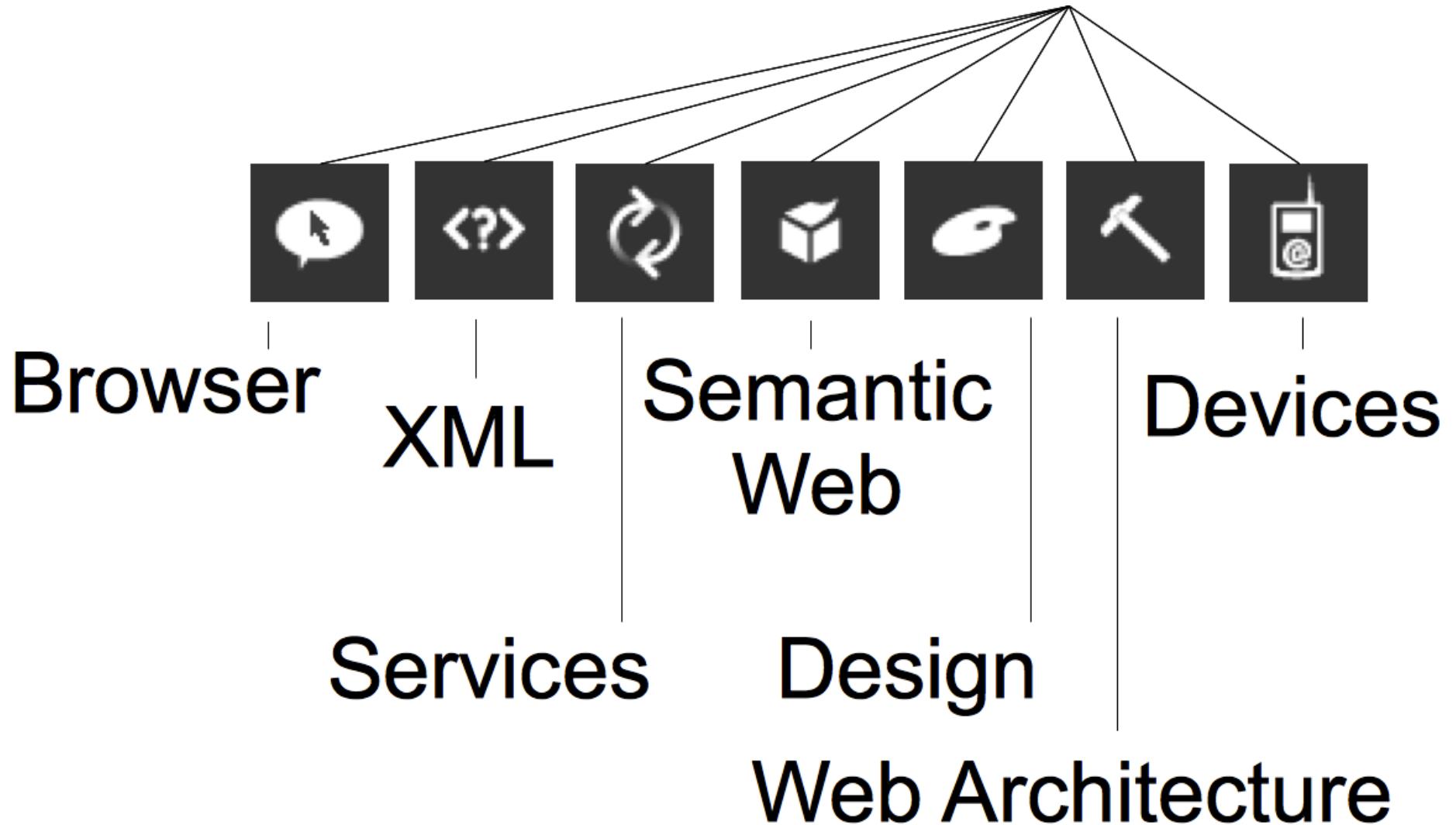
W3C – was ist das?

- Standardisierungsorganisation, 1994 gegründet von Tim Berners-Lee, dem „Entwickler des Web“
- Mitgliedsorganisation mit 300+ Mitgliedern, vgl. [3](http://www.w3.org/Consortium/Member>List• Themen: nicht nur Webtechnologie, sondern verschiedene Bereiche Software intensiver Industrie / Forschung / Verwaltung mit Bezug zum Web</div><div data-bbox=)

Struktur der Organisation

- Drei Hosts: die legalen Vertreter des W3C
 - USA: MIT
 - Europa: ERCIM
 - Japan: Keio University
- W3C Mitgliedsorganisationen (vorherige Folie)
- W3C Team: Koordinierung technischer und administrativer Arbeit, vgl.
<http://www.w3.org/People/>
- W3C Büros: Kontaktpunkt für Informationen zum W3C, Outreach, Verbindung zu lokaler Industrie / Forschung / Verwaltung / Standardisierungsaktivitäten (z.B. DIN)

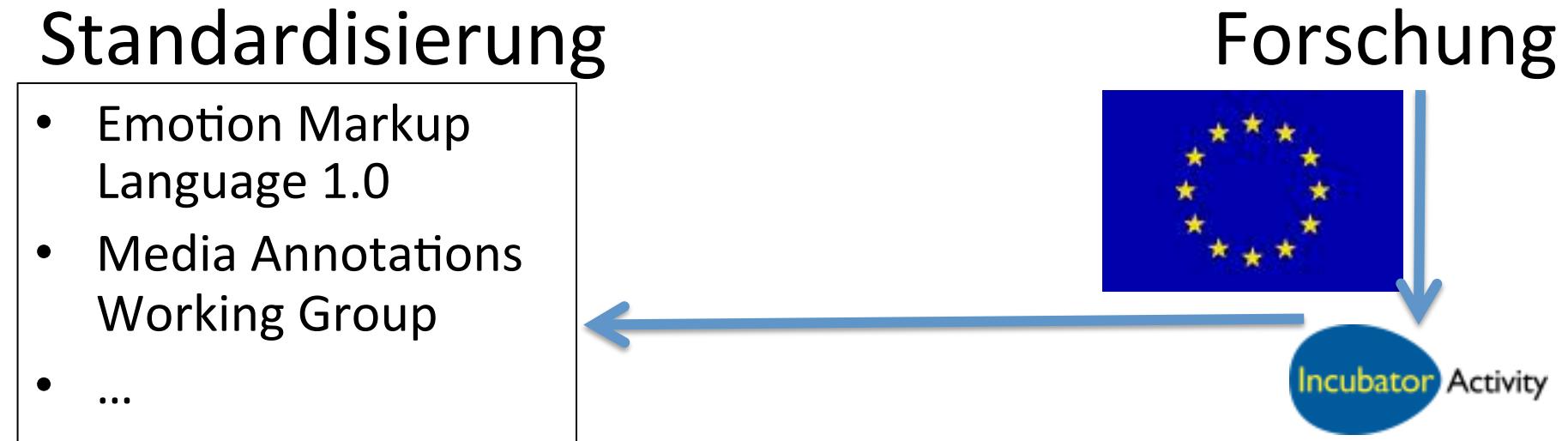
Im Allgemeinen: Themen



Neue Technologien versus Anwendungen von Technologien

- RDF, OWL: Schaffung neuer Technologien für das Semantic Web, vgl.
<http://www.w3.org/2001/sw/>
- “Health Care and Life Sciences”: Anwendung für das Semantic Web, vgl.
<http://www.w3.org/blog/hcls>
- In zunehmenden Maße: Standardisierung von Anwendungsbereichen (s.o.) auch im W3C

W3C und Forschung (gefördert z.B. von der EU)



- Forschung kann Eingabe finden in „experimentelle“ Aktivitäten: “incubator groups”, im W3C, vgl. <http://www.w3.org/2005/Incubator/>
- Manchmal ist das Ergebnis dieser Aktivitäten Eingabe in reguläre Standardisierung

Wichtige Gruppen und ihre Aktivitäten im W3C

- Working Groups
 - reguläre Standardisierung
 - Output: meist W3C Recommendations
- Interest Groups
 - Diskussion, „Community Building“ – eher informell
 - Output: meist W3C Notes
- Incubator groups
 - Output: Incubator reports

W3C „Recommendation Track“ Prozess

1. „First public Working Draft“
2. (Potentiell) Veröffentlichung weiter WDs
3. Veröffentlichung „Last Call“ WD (LCWD)
4. Wenn keine Änderungen unter 3: Veröffentlichung „Candidate Recommendation“ (CR) und Implementationen
5. Wenn keine Änderungen unter 4: Veröffentlichung „Proposed Recommendation“ (PR)
6. Wenn keine Änderungen unter 5: Veröffentlichung „W3C Recommenation (REC)“

Änderungen bei den Schritten 3-5 führen zu Zyklen im Prozess

W3C UND E-GOVERNMENT

eGovernment@W3C



eGovernment at W3C

Better Government Through Better Use of the Web.

Welcome! The World Wide Web Consortium invites all who work within governments or those who work or engage with governments to participate in the many opportunities sponsored by W3C and the Web community.

W3C's eGovernment Activity currently offers speakers, discussion forums, educational information, and guidelines focused on helping governments to publish data in open, standards-based formats so that information can be more easily accessed on the Web.

News

eGov at W3C Technical Plenary Week (TPAC)

Two weeks ago, we held a series of discussions of eGovernment topics at the W3C [Technical Plenary and Advisory Committee meeting \(TPAC\)](#) in Lyon, France.

The first day consisted of a broad ranging discussion across eGovernment issues, lent some shape by presentations from W3C staff members. Some of the topics provoking the most discussion were licensing, privacy, open government data, identity, and eGov outreach.

eGovernment is the use of the Web and other information technologies by governments to interact with the citizenry, between departments and divisions, and with other governments.

Groups

- [eGovernment Interest Group](#)
- Currently being formed: [Government Linked Data \(GLD\) Working Group](#)

Documents

- [Improving Access to Government through Better Use of the Web](#)

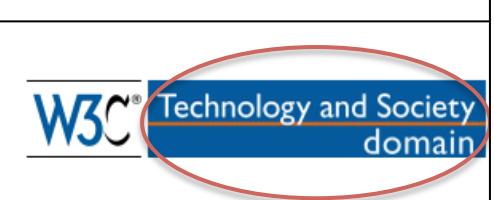
News Search

All Words
 Some Word
 Entire phrase

News Categories

- [All](#)

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eGovernment@W3C

eGovernment Interest Group (IG)

The screenshot shows a Wikipedia-style page for the "eGovernment Interest Group".

Page Header: The top navigation bar includes links for "page" (highlighted in yellow), "discussion", "view source", and "history". On the far right, there is a "Log in" link.

Page Title: The title "Main Page" is displayed prominently on the right side.

Section Headers: The main content area features several section headers: "eGovernment Interest Group", "Current Activities", "Join Us", "Documents", and "Group Updates".

Content: The "eGovernment Interest Group" section contains a mission statement: "The mission of the eGovernment Interest Group (eGov IG) is to explore how to improve access to government through better use of the Web and achieve better government transparency using open Web standards at any government level (local, state, national and multi-national). The eGov IG is designed as a forum to support researchers, developers, solution providers, and users of government services that use the Web as the delivery channel, and enable broader collaboration across eGov practitioners." It also mentions the "executive summary" and "eGovernment at W3C".

Current Activities: This section lists various group activities:

- [Current IG Projects](#)
- [Publishing Open Government Data](#) (Working Draft, 8 Sept 2009)
- [2nd charter](#) has been approved (9 Oct 2009)
- [Activity Plan](#): needs update now that 2nd charter ready
- [Use Cases](#): index of use cases (needs update)
- Task Forces
 - [Editorial Task Force](#)
- [Related Initiatives](#): Related external initiatives
- [Bibliography](#): Reports, books and documents of interest
- [Existing Stuff](#): Material produced somewhere else that could be of help (e.g. guidelines)

Join Us: This section contains two bullet points:

- Group participation is open. [Learn more...](#)
- We also use some [social media tools](#)

Documents: This section lists two documents:

- [Publishing Open Government Data](#)
- [Improving Access to Government through Better Use of the Web](#)

Group Updates: This section is currently empty.

eGovernment@W3C

eGovernment Interest Group (IG)

- 87 Teilnehmer
- 36 Organisationen
- 35 „invited experts“

eGovernment@W3C

eGovernment Interest Group (IG)

- Themen:
 - Nutzung von Webstandards
 - Transparenz & Teilnahme
 - Integration von Daten

eGovernment@W3C

eGovernment Interest Group (IG)

- Themen:
 - Nutzung von Webstandards
 - Persistente Identifikatoren, Identifikation und Authentifikation
 - Transparenz und Teilnahme
 - Partizipation von Bevölkerung und Regierung am Web 2.0
 - „Linked data“
 - Integration von Daten
 - Interoperabilität
 - Aggregation, Archivierung

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 - Anwendungen:
 - Öffentliche Services
 - Interaktionen zwischen Bevölkerung, Verwaltung, Industrie
 - Infrastruktur für Datenintegration

eGovernment@W3C

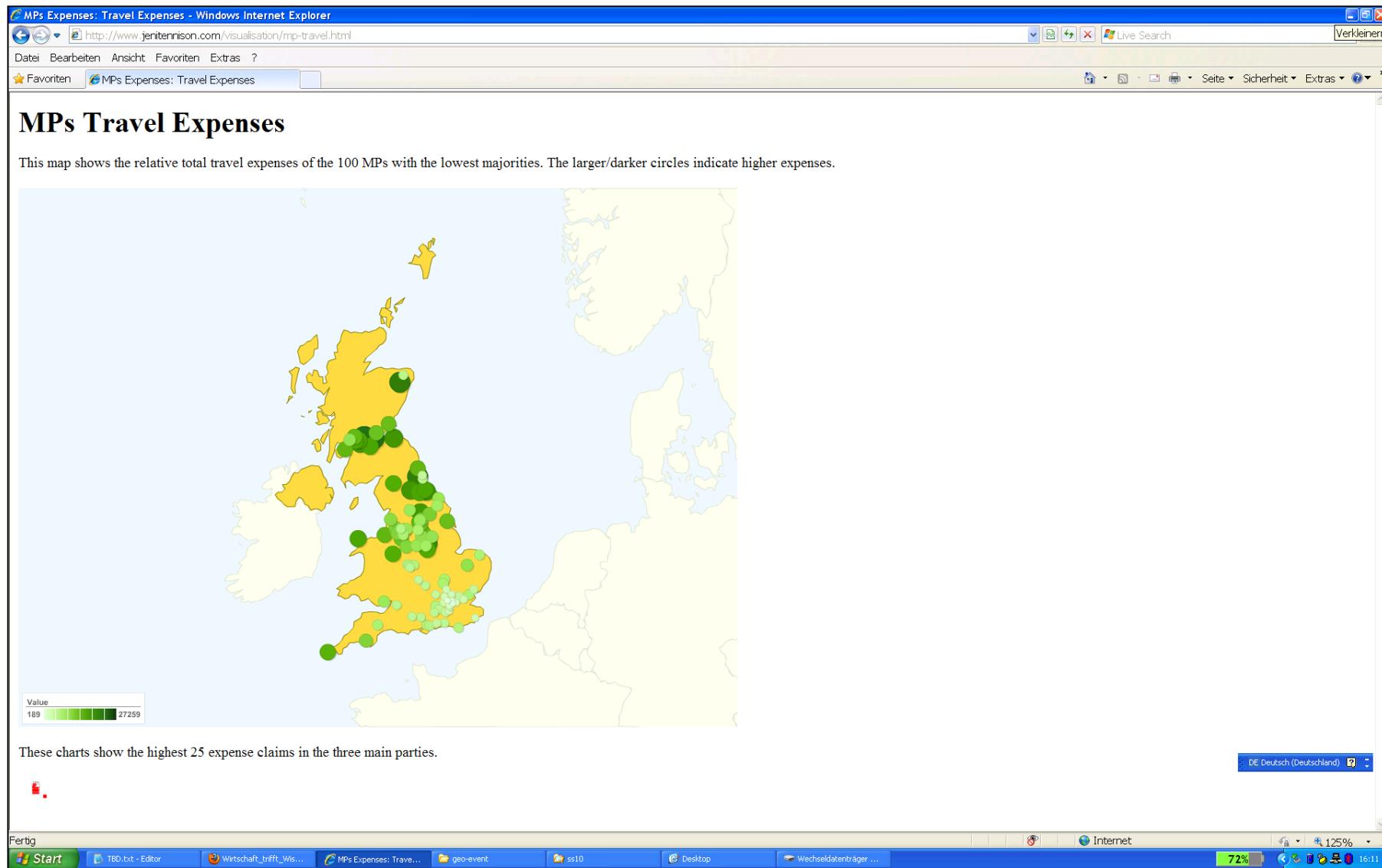
eGovernment Interest Group (IG)

- Output:
 - Interest Group Note „Improving Access to Government through Better Use of the Web“
 - <http://www.w3.org/TR/egov-improving/>
 - Beschreibt Themen und Anwendungen (vgl. vorherige Folie)
 - Working Draft „Publishing Open Government Data“
 - <http://www.w3.org/TR/gov-data/>
 - Richtlinien zur Veröffentlichung von Linked data

BEISPIELANWENDUNG

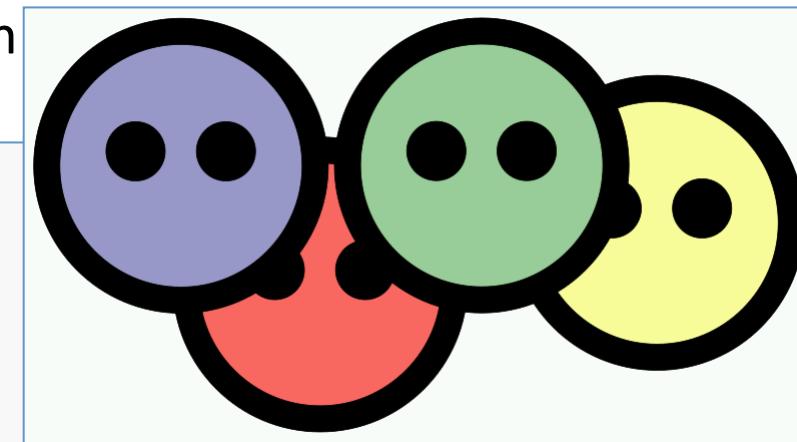
Beispielanwendung

- Demo von Jeni Tennison (UK): Visualisierung der Reisekosten von MPs Travel Expenses, dynamisch generiert aus frei verfügbaren Datenquellen
- Vgl. <http://www.jenitennison.com/blog/node/119>



Notwendige Informationen: Allgemeine Datenquellen

- Beispiel DBpedia & FOAF
 - Repräsentation von Wikipedia in maschinenlesbarer Form
 - Informationen über Personen



Notwendige Informationen: Allgemeine Datenquellen

- Beispiel WGS84 Geo Positioning Vocabulary
 - Webformat für Geo-Koordinaten

WGS84 Geo Positioning: an RDF vocabulary

A vocabulary for representing latitude, longitude and altitude information in the WGS84 geodetic reference datum. Version \$Id: wgs84_pos.rdf,v 1.22 2009/04/20 15:00:30 timbl Exp \$. See <http://www.w3.org/2003/01/geo/> for more details.

date: \$Date: 2009/04/20 15:00:30 \$

label: geo

comment: Recent changes to this namespace: \$Log: wgs84_pos.rdf,v \$ Revision 1.22 2009/04/20 15:00:30 timbl Remove the time bits which have been deal with elsewhere eg in iCal. Revision 1.21 2009/04/20 12:52:47 timbl try again Revision 1.20 2009/04/20 12:42:11 timbl Add Event (edited ages ago and never checked in), and location (following discussion <http://chatlogs.planetrdf.com/swg/2009-04-20#T12-36-09>) Revision 1.19 2009/04/20 12:36:31 timbl Add Event (edited ages ago and never checked in), and location (following discussion <http://chatlogs.planetrdf.com/swg/2009-04-20#T12-36-09>) Revision 1.18 2006/02/01 22:01:04 danbri Clarified that lat and long are decimal degrees, and that alt is decimal metres about local reference ellipsoid Revision 1.17 2004/02/06 17:38:12 danbri Fixed a bad commit screwup Revision 1.15 2003/04/19 11:24:08 danbri Fixed the type even more. Revision 1.14 2003/04/19 11:16:56 danbri fixed a typo Revision 1.13 2003/02/19 22:27:27 connolly relaxed domain constraints on lat/long/alt from Point to SpatialThing Revision 1.12 2003/01/12 01:41:41 danbri Trying local copy of XSLT doc. Revision 1.11 2003/01/12 01:20:18 danbri added a link to morten's xsitr rdf viewer. Revision 1.10 2003/01/11 18:56:49 danbri Removed datatype range from lat and long properties, since they would have required each occurrence of the property to mention the datatype. Revision 1.9 2003/01/11 11:41:31 danbri Another typo; repaired rdfs:Property to rdf:Property w4 Revision 1.8 2003/01/11 11:05:02 danbri Added an rdfs:range for each lat/long/alt property, <http://www.w3.org/2001/XMLSchema#float> Revision 1.7 2003/01/10 20:25:16 danbri Longer rdfs:comment for Point, trying to be Earth-centric and neutral about coordinate system(s) at the same time. Feedback welcomed. Revision 1.6 2003/01/10 20:18:30 danbri Added CVS log comments into the RDF/XML as an rdfs:comment property of the vocabulary. Note that this is not common practice (but seems both harmless and potentially useful). revision 1.5 date: 2003/01/10 20:14:31; author: danbri; state: Exp; lines: +16 -5 Updated schema: Added a dc:date; added url for more info. Changed the rdfs:label of the namespace from gp to geo. Added a class Point, set as the rdfs:domain of each property. Added XML comment on the lat/long property suggesting that we might not need it (based on #dig commentary from implementors). revision 1.4 date: 2003/01/10 20:01:07; author: danbri; state: Exp; lines: +6 -5 Fixed typo; several rdfs:about attributes are now rdf:about. Thanks to MortenF in #dig for catching this error. revision 1.3 date: 2003/01/10 11:59:03; author: danbri; state: Exp; lines: +4 -3 fixed buglet in vocab, added more wgs links revision 1.2 date: 2003/01/10 11:01:11; author: danbri; state: Exp; lines: +4 -4 Removed alt from the as-a-flat-string property, and switched from space separated to comma separated. revision 1.1 date: 2003/01/10 10:53:23; author: danbri; state: Exp; basic geo vocab

Namespace: http://www.w3.org/2003/01/geo/wgs84_pos#



Classes

SpatialThing Anything with spatial extent, i.e. size, shape, or position e.g. people, places, bowling balls, as well as abstract areas like cubes.

[SpatialThing]

point A point, typically described using a coordinate system relative to Earth, such as WGS84. Uniquely identified by lat/long/alt. i.e. spaciallyIntersects(P1, P2) :- lat(P1, LAT), long(P1, LONG), alt(P1, ALT), lat(P2, LAT), long(P2, LONG), alt(P2, ALT). sameThing(P1, P2) :- type(P1, Point), type(P2, Point), spaciallyIntersects(P1, P2).

[Point] subClassOf: http://www.w3.org/2003/01/geo/wgs84_pos#SpatialThing

Properties

latitude The WGS84 latitude of a SpatialThing (decimal degrees).

[lat] domain: http://www.w3.org/2003/01/geo/wgs84_pos#SpatialThing

The relation between something and the point, or other geometrical thing in space, where it is. For example, the relationship between a radio tower and a Point with a given lat and long. Or a relationship between a park and its outline as a closed arc of points, or a road and its location as a arc (a sequence of points). Clearly in practice there will be limit to the accuracy of any such statement, but one would expect an accuracy appropriate for the size of the object and uses such as mapping.

location range: http://www.w3.org/2003/01/geo/wgs84_pos#SpatialThing

[location] subPropertyOf: http://rdfs.org/ns/foaf/0.1/based_near

longitude The WGS84 longitude of a SpatialThing (decimal degrees).

Notwendige Informationen: Spezifische Datenquellen

- Beispiel „Guardian MP Dataset“ (1)
 - Daten über „Member of Parliament“ in Großbritannien

List of UK Members of Parliament

<http://guardian.dataincubator.org/collection/uk-mps>

RDF/XML JSON Turtle

Label	Has parts
List of UK Members of Parliament	person:adam-afriyie person:adam-holloway person:adam-ingram person:adam-price person:adrian-bailey person:adrian-sanders person:alan-beith person:alan-campbell person:alan-duncan person:alan-hasehurst person:alan-johnson person:alan-keen person:alan-meale person:alan-milburn person:alan-reid person:alan-simpson person:alan-whitehead person:alan-williams person:alasdair-mcdonnell person:albert-owen person:alex-salmond

Notwendige Informationen: Spezifische Datenquellen

- Beispiel „Guardian MP Dataset“ (2)
 - Beinhaltet auch Informationen über Reisekosten

<u>Name</u>	Alex Salmond
<u>Types</u>	msg0:MemberOfParliament foaf:Person
<u>Picture</u>	
mp-expenses:pdfs	http://mps-expenses.guardian.co.uk/mp/579/
mp-expenses:mp-rail	0 [xsd:int]
mp-expenses:mp-other-mileage	0 [xsd:int]
mp-expenses:mp-family-journeys	0 [xsd:int]
mp-expenses:total-travel	6170 [xsd:int]
mp-expenses:mp-misc	0 [xsd:int]
mp-expenses:stationery-associated-postage-costs	4768 [xsd:int]
mp-expenses:total-claim	139233
mp-expenses:office-running-costs	19808 [xsd:int]
Is referenced by	http://www.guardian.co.uk/commentisfree/2007/feb/04/comment.politics

Beispiel für Verarbeitung : Abfrage mit SPARQL

- Abfragesprache für Daten in RDF Semantic Web Format
 - Ergebnis als JSON (JavaScript Format), Eingabe in die Visualisierung (nächste Folie)

<http://guardian.dataincubator.org/person/stephen-laidman> ,,(v: 'Stephen Laidman'),,(v:0.01),,(v:
http://guardian.dataincubator.org/constituency/thanet-south'),,(v: 'Thanet South')
,,(v: 'http://dbpedia.org/resource/labour_party_(uk)'),,(v:51.3078157637),,(v:1.3213
9835505),(v:131316),(v:6243),(v:22793),(v:137559)],,(c:[(v: 'http://guardian.data
incubator.org/person/stephen-williams'),,(v: 'Stephen Williams'),,(v:5128),,(v: http
://guardian.dataincubator.org/constituency/bristol-west'),,(v: 'Bristol West'),,(v:
http://dbpedia.org/resource/liberal_democrats'),,(v:51.4751007652),,(v:-2.6097856
9314),(v:139393),(v:6192),(v:20721),(v:145585)],,(c:[(v: 'http://guardian.datainc
ubator.org/person/alex-salmond'),,(v: 'Alex Salmond'),,(v:11837),,(v: 'http://guardia
n.dataincubator.org/constituency/banff-and-buchan'),,(v: 'Banff and Buchan'),,(v: h
ttp://dbpedia.org/resource/scottish_national_party'),,(v:57.5345041469),,(v:-2.286
56783714),(v:133063),(v:6170),(v:14130),(v:139233)],,(c:[(v: 'http://guardian.dat
aincubator.org/person/bob-russell'),,(v: 'Bob Russell'),,(v:6277),,(v: 'http://guardi
an.dataincubator.org/constituency/colchester'),,(v: 'Colchester'),,(v: http://dbped
ia.org/resource/liberal_democrats'),,(v:51.8875986796),,(v:0.875784880164),,(v:1382
17),(v:6156),(v:10963),(v:144103)],,(c:[(v: 'http://guardian.dataincubator.org/pe
rson/bob-russell'),,(v: 'Bob Russell'),,(v:6277),,(v: 'http://guardian.dataincubator.
org/constituency/colchester'),,(v: 'Colchester'),,(v: 'http://dbpedia.org/resource/L
iberal_Democrats'),,(v:51.8875986796),,(v:0.875784880164),,(v:138217),(v:6156),(v:
0963),(v:144373)]).,(c:[(v: 'http://guardian.dataincubator.org/person/huw-irranca-
'))

Beispiel für Visualisierung: Visualisierungsschnittstelle

- Google Visualization API
- Ausgabe der SPARQL-Abfrage ist Eingabe für das API

Google code Search

e.g. "ajax apis" or "open source"

Google Chart Tools / Interactive Charts (aka Visualization API)

Home Docs FAQ Forum Terms

Visualization API

[What's New?](#)

[Release Notes](#)

[Issues & Feature Requests](#)

[Using Visualizations](#)

[Creating Visualizations](#)

[Implementing a Data Source](#)

[Code Samples](#)

[Reference](#)

Galleries

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[Gadget Gallery](#)

[Data Sources and Tools Gallery](#)

Google Spreadsheets

[Spreadsheet Integration](#)

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[Submit a Visualization](#)

[Submit a Gadget](#)

Google Chart Tools

[What are the Chart Tools?](#)

[Choosing a Chart Tool](#)

Google Visualization API Gallery

This gallery lists JavaScript visualizations built on the Google Visualization API. Some of these have been written by Google, and some have been written by third parties. Links below point to instructions for and demonstrations of each visualization. (Links to third-party visualizations will take you off the Google site.) To learn how to use JavaScript visualizations, read [Using Visualizations](#).

To see a list of visualization gadgets, see the [Google Visualization API Gadget Gallery](#).

If you have developed your own visualization, we encourage you to [submit](#) it to this gallery. Note that you should test any visualizations you use on your target browsers to ensure that they work as expected. Older browsers may not support all visualizations.

Click a visualization below to see documentation and examples.

Filter Chart Types: All Charts ▾

	Annotated Time Line An animated time series chart. By: Google GWT Integrated
	Area Chart (Image) Area chart using Google Chart API . By: Google
	Area Chart Interactive area chart. By: Google GWT Integrated
	Bar Chart (Image) Bar chart using Google Chart API . By: Google
	Bar Chart Interactive bar chart. By: Google GWT Integrated
	Bars of Stuff Fun bar charts using images of trains, chocolate, worms, and more. By: The visapi project

Was zeigt uns das – zurück zu Themen und Anwendungen

- Themen:
 - Nutzung von Webstandards
 - Persistente Identifikatoren, Identifikation und Authentifikation
 - Transparenz und Teilnahme
 - Partizipation von Bevölkerung und Regierung am Web 2.0
 - „Linked data“
 - Integration von Daten
 - Interoperabilität
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 - Anwendungen:
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 - Infrastruktur für Datenintegration

**DEMNÄCHST: EINE EGOVERNMENT
LINKED DATA WORKING GROUP**

Government Linked Data Working Group

- „The **mission** of the Government Linked Data (GLD or GovData) Working Group is to provide standards and other information which help governments around the world publish their data as effective and usable linked data.“

Von <http://www.w3.org/2011/govdata/charter>

- Start: 1. April 2011 (erwartet)

Government Linked Data Working Group - Deliverables

- „Community directory“
 - Nutzer, Firmen, Anwendungen, ...
- „Best Practices for Publishing Linked Data“
 - Beschaffung, Lizenzfragen, Wahl von Vokabularen, URI Konstruktion, Versionierung, Stabilität, „alte“ Daten, „Kochbuch für Linked open data“
- Standardisierte Vokabulare
 - Metadaten über Provenienz, Datenkataloge, Datenqualität, ...
 - Statistische Daten
 - Personendaten
 - Strukturen von Organisationen
 - ...

Was W3C zu eGovernment beitragen kann

- „Open Data“: ein Thema in
 - Übersee: <http://data.gov.uk/>, <http://www.data.gov/>
 - Deutschland: <http://blog.zeit.de/open-data>
- Aufkommend: mehr Daten, mehr Services
 - <http://ckan.net/>: unterschiedliche Formate, Qualität, Verlässlichkeit
- W3C sichert durch Standardisierung mehr Interoperabilität für eGovernment im Web

Government Linked Data Working Group – In Stein gemeißelt?

- Nein!
- Der Arbeitsplan (Charter) braucht Ihren Input!
- Geben Sie Kommentare ab unter
<http://lists.w3.org/Archives/Public/public-egov-ig/>
- Oder sprechen Sie mit uns ☺

XML3D auf der LNDW



www.xml3d.org

**Vielen Dank für Ihre
Aufmerksamkeit**