

2011. 10.24 ~ 26 Coex, Seoul, Korea



The OSGeo Foundation

**Transparency
Openness
Policy**

Arnulf Christl, President

Seoul, Korea, 2011

Open Source Geospatial Foundation

The Open Source Geospatial Foundation, or OSGeo, is a not-for-profit organization whose mission is to support and promote the collaborative development of open geospatial technologies and data.

Content

Summary

What is Openness?

- Open Standards
- Open Source
- Open Data

Outlook

Summary

We already have the **Software**, the **Standards**
and the **Know-How**.

But we lack **Data**.

Future development should therefore focus on
(Public) **Open Linked Data** to support true
Transparency and allow broad Participation.

Whatever happens in the next 10 minutes, just think:



Arnulf Christl, Spatial Systems Architect

- Member of OGC Architecture Board
- OSGeo President
- OpenStreetMap advocate



My alter ego Seven is an Ex-Borg

Bringing Order to Chaos?

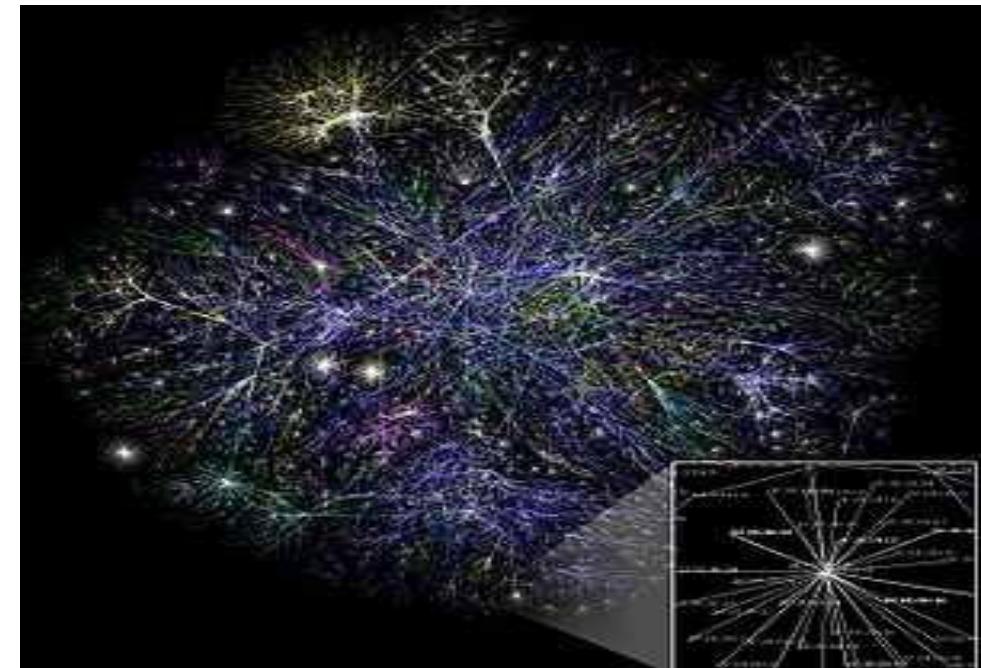
No!

(Coordinated)

Chaos is Good!

The Internet **Dis**-Order

- DNS (Domain Name System)
- Internet Protocol Suite
- TCP/IP, TLS Security
- HTTP
- URI < Human error
- ... **the Web**
- Simple Mail Transfer Protocol (SMTP) < Spam



<http://en.wikipedia.org/wiki/Internet>

Openness – Opinions

twitter Search Home Profile Messages Who To Follow sevenspatial sevenspatial

 **sevenspatial** Arnulf Christl
"@GISStrobl: @sevenspatial don't forget to include the 'open minds' as foundation for open*everythingelse!" Thanks. Done.
22 minutes ago

 **sevenspatial** Arnulf Christl
/me prepares 'slide set' for the intro of the afternoon session @ #AGIT2011 on #Openness by retweeting different view points.
51 minutes ago

 **edparsons** Ed Parsons  by sevenspatial
@ReallvanSanchez :)
12 hours ago

 **ReallvanSanchez** Iván Sánchez Ortega  by sevenspatial
@edparsons Do I have to explain free beer vs. free speech again? I thought we were over that. <http://www.opendefinition.org/okd/>
12 hours ago

 **sgillies** Sean Gillies  by sevenspatial
RT @petermurrayrust <http://bit.ly/nckUZo> Open Scholarship means better science
10 hours ago

 **spatialguru** Tyler Mitchell  by sevenspatial
we need an "open" test: suck=fail RT @lisa_cornish: Toronto's data open ... ~useless - torontosun.com/2011/07/06/tor... #opendata #gov20 via @DanAtSafe
8 hours ago

 Geographic Information System (GIS) professional, manage...

Following · view all



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Shortcuts Advertisers Businesses Media Developers
Resources © 2011 Twitter

On Openness

- Frankness
- Candidness
- Candor
- Directness
- Forthrightness
- Ingenuousness
- Plainness
- Accountability
- Transparency
- Readiness to assume risk
- Predisposition
- Receptiveness
- Receptivity

More takes on Openness

- Free Software (<http://www.fsf.org/>)
- INSPIRE & Public Sector Information (EU)
- Data Liberation Front (Google internal initiative)
- Linked Open Data (W3C definition)
- US-Open (<http://www.usopen.org/>)
- Freedom of Information Act ([USA gov](#))
- Maps for OSM (Imports, Microsoft Bing Maps, ...)
- WikiLeaks ([Global Transparency](#), mirror)

Open Definition

Defining the Open in Open Data, Open Content and Open Services

PAGES

[Home](#)

[About](#)

[Advisory Council](#)

[Guide to Open Licensing](#)

[Participate](#)

Open Definition

[Беларуская](#) | [Български](#) | [Català](#) | [中文](#) | [Dansk](#) | [Deutsch](#) | [Ελληνικά](#) | [English](#) | [Español](#) | [Euskara](#) | [Français](#) | [Galego](#) |
[Íslenska](#) | [Italiano](#) | [Magyar](#) | [македонски јазик](#) | [Norsk \(bokmål\)](#) | [Polszczyzna](#) | [Português](#) | [Português Brasileiro](#) |
[Русский](#) | [Srpski](#) | [Suomen](#) | [Svenska](#)

If you would like to help out with translating the OKD into a language not on the list above, please [get in touch](#)

WEB BUTTONS

Get a web button to show that
your project is open!



Version 1.1

Terminology

The term **knowledge** is taken to include:

1. Content such as music, films, books
2. Data be it scientific, historical, geographic or otherwise
3. Government and other administrative information

Software is excluded despite its obvious centrality because it is already adequately addressed by previous work.

<http://www.opendefinition.org/software-service/>
<http://www.opendefinition.org/okd/>

Definitions of Openness in the Geospatial-Domain

- Open (Standards) <http://opengeospatial.org>
- Open (Source) Software <http://osgeo.org>
- Open (Free) Data <http://openstreetmap.org>

OGC's Word Cloud



Courtsey by Paul Ramsey

Vision:

Realization of the full societal, economic and scientific benefits of integrating electronic location resources into commercial and institutional processes worldwide.

Mission:

To serve as a global forum for the collaboration of developers and users of spatial data products and services, and to advance the development of international standards for geospatial interoperability.

Open in OGC

- All (with the appropriate financial background) can participate.
- All standards can be used royalty free (without cost) by anybody.
- All can comment on the standards during the public (open) discussion period.
- All can propose change requests

Consensus Oriented

Is there any objection to unanimous consent?

Discussion?

- No, ... then the motion passes.
- Yes? Then please explain ...
 - Friendly amendment ...
 - Go back to start ...



Courtesy by Paul Ramsey



Open in OSGeo

- All can participate
- All software must be licensed as Open Source and Free Software.
- All processes of the organization are open to public scrutiny.

Vision and Mission

- A world where freely available geospatial data and tools are used for the benefit humanity.
- To support the collaborative development of open source geospatial software, and promote its widespread use.

<http://www.osgoe.org/about>

(Selected) Goals

- To support foundation projects (...) and the implementation of open standards to achieve interoperability.
- To provide support for the use of OSGeo software in education.
- To promote freely available geodata - free software is useless without data.

Software Education Data

<http://www.osgoe.org/about>

Free Software

- Free Software is a license model!
- Not like "Free beer" but as in Free Speech
- Free to:
 - use anywhere and for any purpose
 - understand and improve
 - pass on to anybody else
 - provide services and grow a business around



...today and
tomorrow!

Open Source

Open Source is a way of collaborating in a coordinated way:



- Do good things (code) and talk about them (publish early, release often)
- Do not reinvent, reuse & improve (collaborate)
- Open (coordinated) participation to everyone
- Make (coordinated & collaborative) decisions transparent

Education and Curriculum

- Develop a Curriculum using Open Source Software
- Create Software stack to support Education
- Cooperate with Universities, for example through Memoranda of Understanding
- Support trainers and students
- Conduct Workshops and Tutorials

Do-ocracy

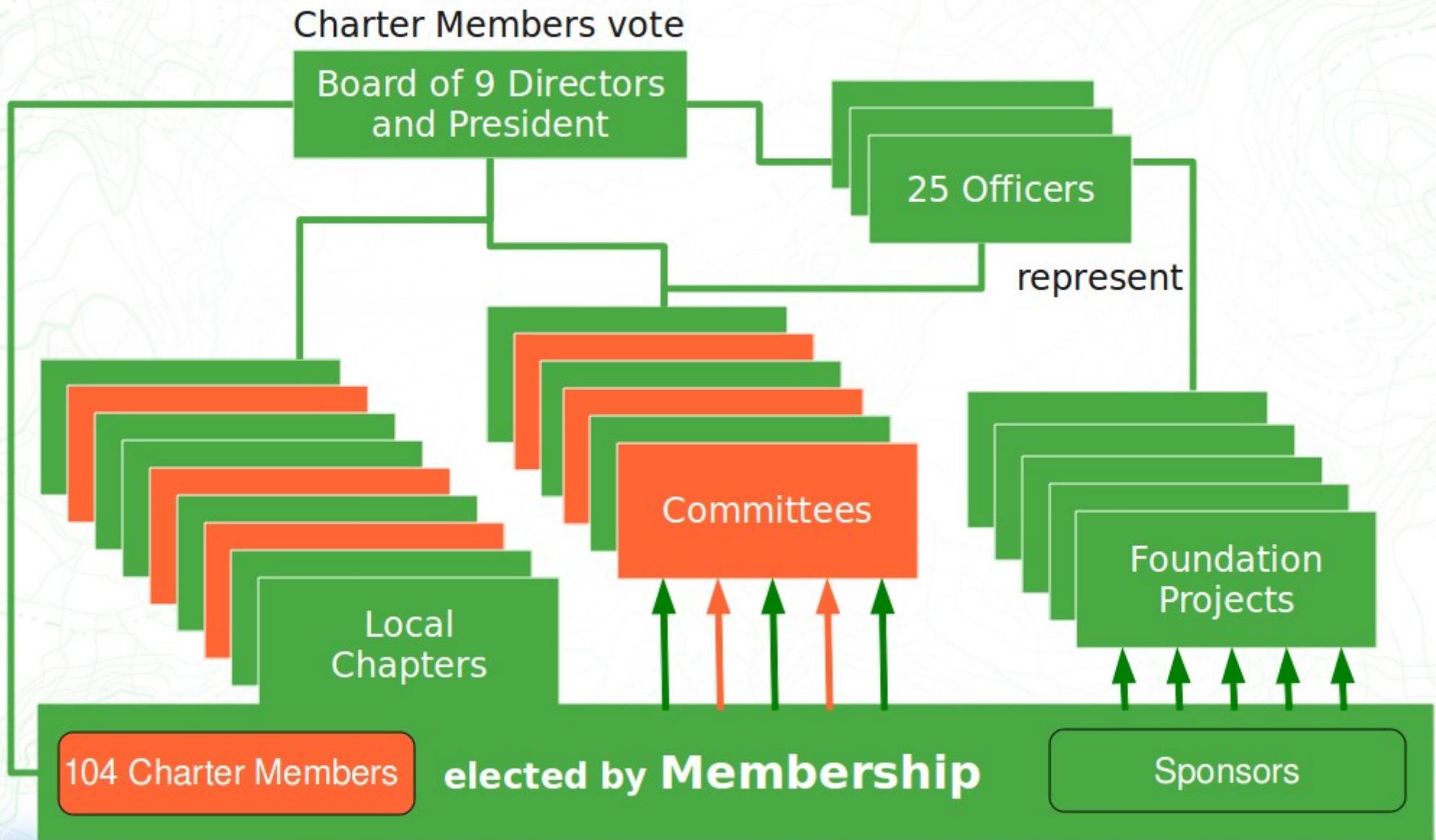
A do-ocracy [...] is an organizational structure in which individuals choose roles and tasks for themselves and execute them.

Responsibilities attach to people who do the work, rather than elected or selected officials.



<http://wiki.osgeo.org/wiki/Logo> (2011-04-03)

OSGeo's Structure



But:

Software is worthless without data!

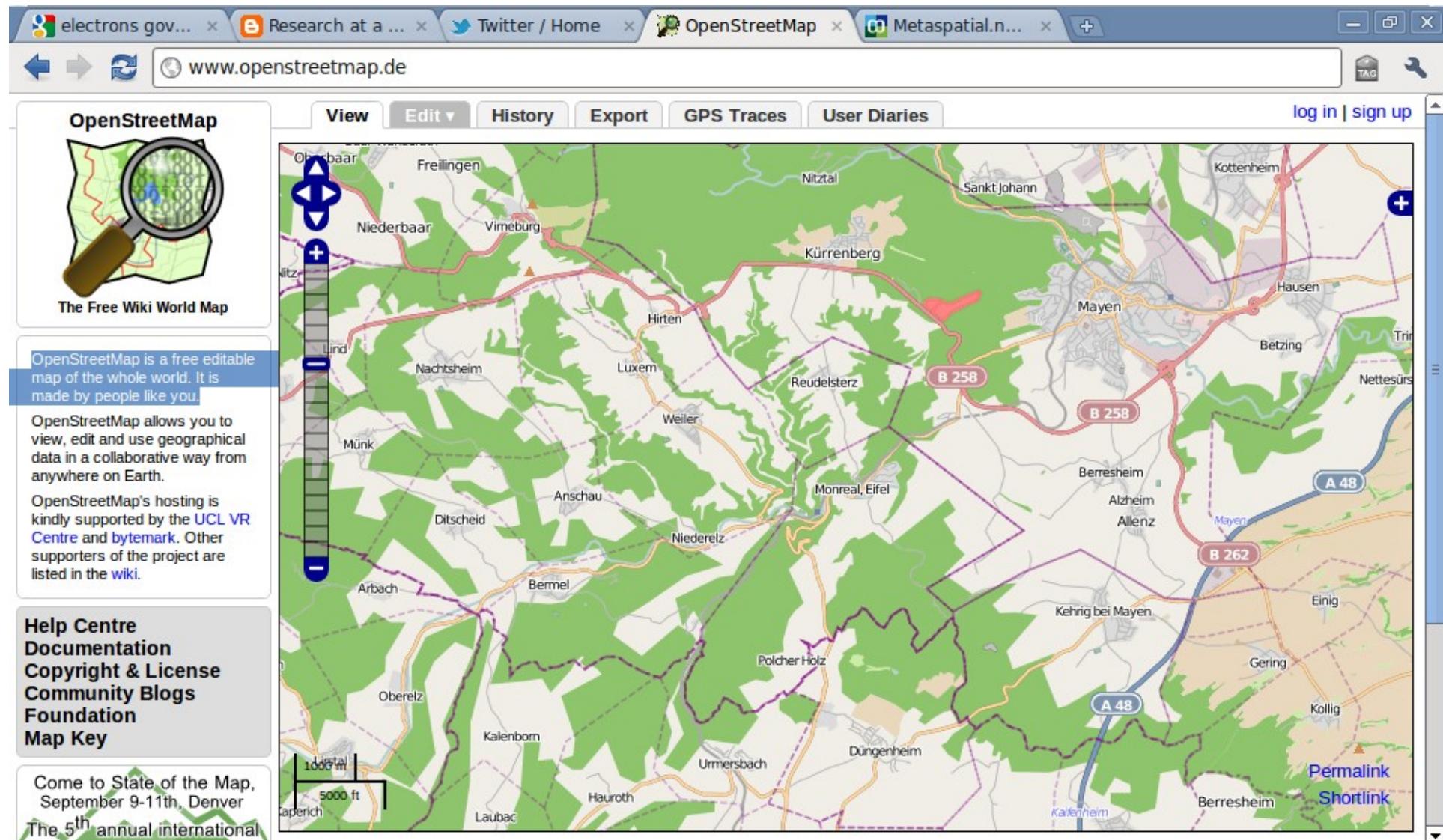
(Schuyler Erle)



OpenStreetMap



OpenStreetMap



The screenshot shows the OpenStreetMap website interface. The main area displays a detailed map of the Eifel region in Germany, featuring green areas for forests, grey areas for settlements, and various colored lines representing roads. Several road segments are highlighted with labels: "B 258", "B 262", "A 48", and "A 48". The map includes numerous place names such as Oberbaar, Freilingen, Niederbaar, Vimeburg, Hirten, Luxem, Weiler, Reudelsterz, Monreal, Eifel, Arbach, Bermel, Ditscheid, Anschau, Niederei, Oberelz, Kalenborn, Laubac, Hauroth, Urmersbach, Dungenheim, Kehrig bei Mayen, Einig, Gering, Kollig, Permalink, Shortlink, and Berresheim. A legend on the left side provides information about the map's features, including a magnifying glass icon and text about it being a free wiki world map. It also lists links to the Help Centre, Documentation, Copyright & License, Community Blogs, Foundation, and Map Key. At the bottom left, there is a call to action for the "State of the Map" event in Denver.

OpenStreetMap



OpenStreetMap is a free editable map of the whole world.

It is made by people like you.

OpenStreetMap

- Free and Open Data (what)
- Crowd Sourced Data (how)

...the Wiki way of doing things

"Volunteered Geographic Information" (Goodchild, 2007) ... but it lacks the all important aspect of free reusability of the data and thus participation.

OpenStreetMap



Open in OpenStreetMap

- All can participate
- All can create maps
- All can use and get the maps

Future Evolution

- Resources & Representations
- Semantics
- ...
- ...
- ...
- Fully Open

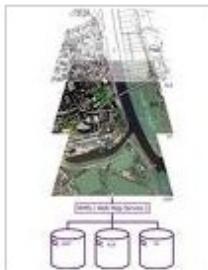
The Five Stars for Linked Open Data

From an idea by Tim Berners Lee:

- ★ make **your stuff** available on the Web (whatever format) under an open license
- ★★ make it available as **structured data** (e.g., Excel instead of image scan of a table)
- ★★★ use **non-proprietary** formats (e.g., CSV instead of Excel)
- ★★★★ use URIs to identify things, so that people can point at your structured data (make data addressable)
- ★★★★★ Link **your data** with other data to create new information

Slide set: <http://inkdroid.org/journal/2010/06/04/the-5-stars-of-open-linked-data/>
Online example: <http://lab.linkeddata.deri.ie/2010/star-scheme-by-example/>

Geo Data



Überlagerung von Geodaten
413 × 534 - 55 KB - jpg
landesvermessung.sachsen.de



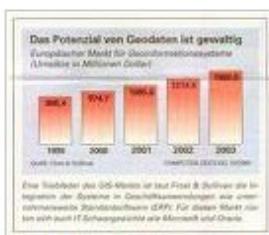
Der Geodaten-Gipfel in
640 × 426 - 73 KB - jpg
pcgameshardware.de



Um die Geodaten zu setzen,
500 × 280 - 51 KB - jpg
bis.inf.fh-brs.de



Geografisches
494 × 258 - 80 KB - gif
kreis-olpe.de



Produzenten von Geodaten
581 × 496 - 261 KB - gif
ifgivor.uni-muenster.de



geodaten-1
207 × 183 - 8 KB - jpg
huss-vermessung.de



die Geodaten anhand von
760 × 633 - 522 KB - png
php-kurs.com



Freie Vektor-Geodaten (im
396 × 306 - 84 KB - png
frida.intevation.org
Ähnliche Bilder suchen



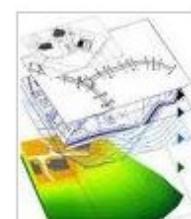
Unter Geodaten versteht
283 × 200 - 20 KB - jpg
geoportal.rlp.de



PDF-Format und Geodaten
418 × 314 - 151 KB - jpg
ingeoforum.de



Geodaten: Woher nehmen
600 × 400 - 48 KB - jpg
christianpfeil.com



geodaten-3
179 × 212 - 8 KB - jpg
huss-vermessung.de

Map Images

Swisstopo – the national map agency of Switzerland makes 500.000.000 tiles available through a cloud infrastructure for it's citizens.

The underlying **Data** is not available freely (yet).

<http://map.geo.admin.ch/>

Ordnance Survey Open Data



The screenshot shows the Ordnance Survey website. At the top left is the OS logo. Below it is the main navigation menu with links: home, business, leisure, map shop, explore, magazine, education, about us, and data.

home business leisure map shop explore magazine education about us data

Ordnance Survey Linked Data.

A description of the resource identified by <http://data.ordnancesurvey.co.uk/>

Title Ordnance Survey Linked Data.

Description Ordnance Survey is Great Britain's national mapping agency, providing the most accurate and up-to-date maps and data for government, business, and individuals. OS OpenData is the opening up of Ordnance Survey data as part of the drive to increase "open data" and "open government". As part of this initiative Ordnance Survey has published a number of its products as Linked Data, where data is published on the Web and then linked to other published data in much the same way that the "semantic web" works. Linked Data is used to describe a method of exposing, sharing, and connecting data via URLs on the Web. For more information on the "semantic web" initiative please go to data.gov.uk. If you are not familiar with Linked Data, OS OpenData products are described on the [OpenData](http://www.ordnancesurvey.co.uk) website. Ordnance Survey can provide support for the Ordnance Survey OpenData products via the SPARQL or SPARQL Endpoints. Ordnance Survey has published three separate linked data resources: the administrative [geonames gazetteer](http://www.ordnancesurvey.co.uk) for Great Britain

<http://data.ordnancesurvey.co.uk/>

Denmark

Geoservicen

Hjem

Geoservicen – udstilling af centrale danske geokodede data

Geoservicen udstiller geokodede danske adresser, vejnavne, postnumre, kommuner, regioner, politikredse, sogne, retskredse samt opstillingskredse. Derudover tilbyder Geoservicen koordinattransformation mellem ETRS89/UTM32, det koordinatsystem som de danske myndigheder anvender, og WGS84/geografisk, som er det koordinatsystem, som de fleste GPS'ere og de gratis korttjenester, som f.eks. Google maps, anvender.

Formålet med Geoservicen er at gøre det lettere for ikke-geokyndige at anvende myndighedernes geokodede data i egne it-løsninger. Det kan være til mashups, GPS mobil apps, datavalidering, adressesøgning mm. Geoservicens funktionalitet tilbydes via et web API, som du kan anvende i dine it-løsninger. Beskrivelsen af API'et er opdelt i emnerområder og kan findes under overskriften Web API til højre på siden.

Hvad kan Geoservicen bruges til?

Geoservicen er ikke rettet mod slutbrugere, så den er ikke forsynet med en decideret brugergrænseflade til servicens funktionalitet og data. Geoservicen er derimod rettet mod dem, som ønsker at udvikle applikationer, hvis funktionalitet kræver geodata med tilhørende funktionalitet.

Du kan f.eks. bruge Geoservicen i dine applikationer til:

Adressesøgning

Mange applikationer har behov for at kunne finde adresser ud fra mangelfulde oplysninger. Hvis du f.eks. ved at en adresse har husnummeret er 77 og vejnavnet starter med a og slutter med gade, kan du finde de adresser, der opfylder dette på følgende måde:

http://geo.oiorest.dk/adresser?husnr=77&vejnavn=a*gade

Adressevalidering

Web API

- Generelt
- Koordinattransformation
- Adresser
- Vejnavne
- Regioner
- Kommuner
- Postnumre
- Politikredse
- Sogne
- Retskredse
- Opstillingskredse

Dokumentation

- Om Geoservicen
- Betingelser for brug
- Gruppe på Digitaliser.dk
- OIOREST
- ODIS

Eksempler på

<http://geo.oiorest.dk/>

Data Policy!

- Make public data freely available
- Pay by applying the polluter pays principle
- Data – not just maps!
- Freely available – to do whatever humanity deems suitable. **No restrictions.**
- Everywhere and for everyone

No restrictions.

Data Policy: No restrictions!

The Five Stars for Linked Open Data

From an idea by Tim Berners Lee:

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Online example: <http://lab.linkeddata.deri.ie/2010/star-scheme-by-example/>

Thank you for your
Attention!



The annual Conference on
Free and Open Source Software
for Geospatial

With friendly support by:



Download slide sets:

http://arnulf.us/publications/what_is_openness.odp
http://arnulf.us/publications/what_is_openness.pdf

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More Links...

- <http://www.semic.eu/>
- <http://www.ffi.org/>
- http://ec.europa.eu/information_society/activities/ege
- <http://www.epsiplus.net/>
- <http://www.osgeo.org>
- <http://opendata.org>