



ifgi

Institute for Geoinformatics
University of Münster

ifgi @ VGIRisk

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ifgi Labs

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- Semantic Interoperability Lab > Prof. Kuhn

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- Spatio-temporal Modeling Lab > Prof. Pebesma

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- HCI Lab (?) > Prof. Kray

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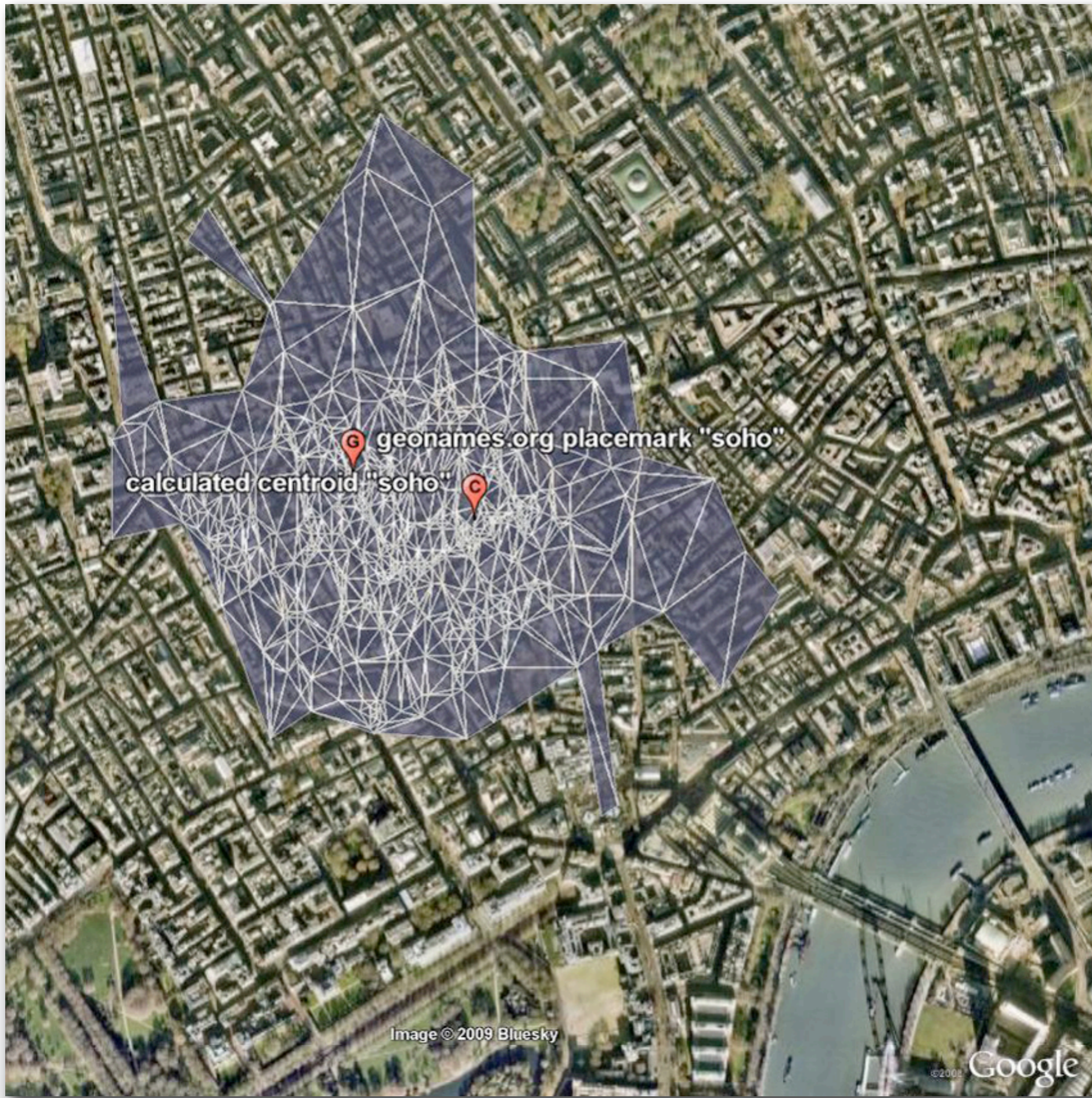
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- Sensor Web, Web-based Geoprocessing, and Simulation Lab > Dr. Foerster

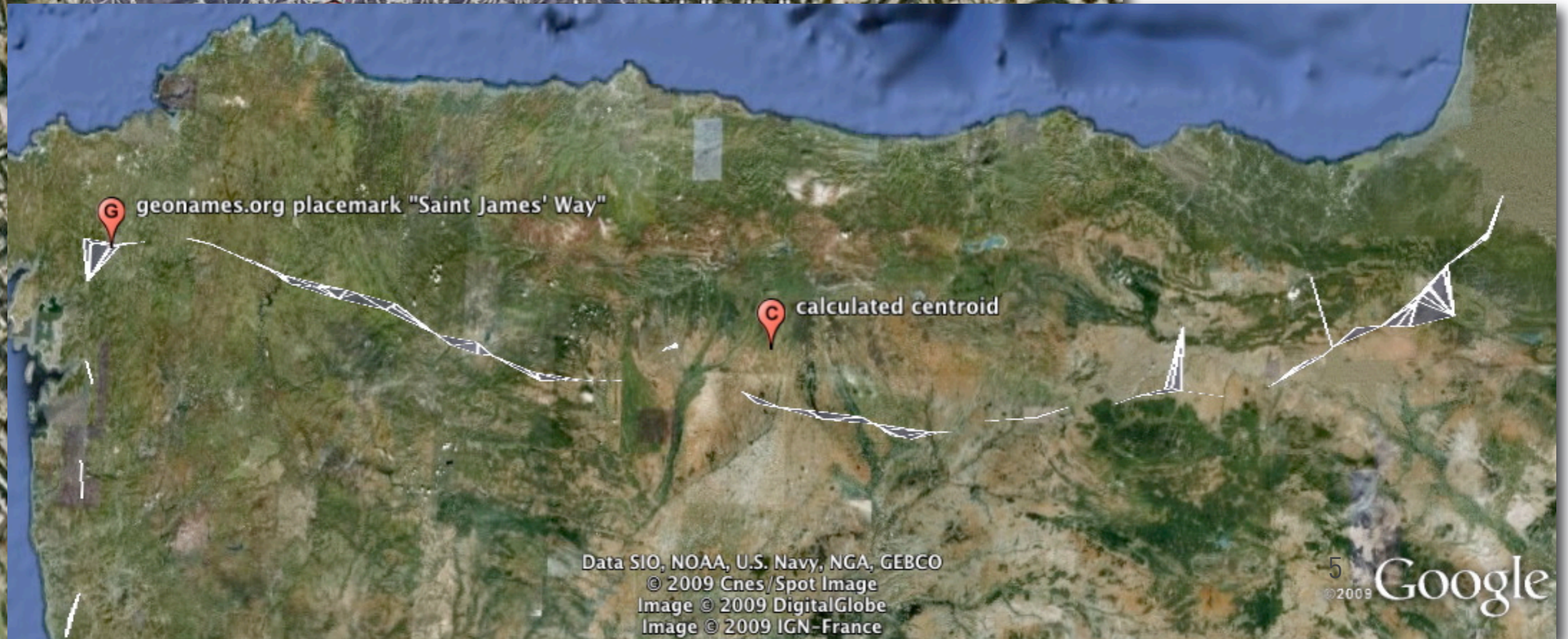
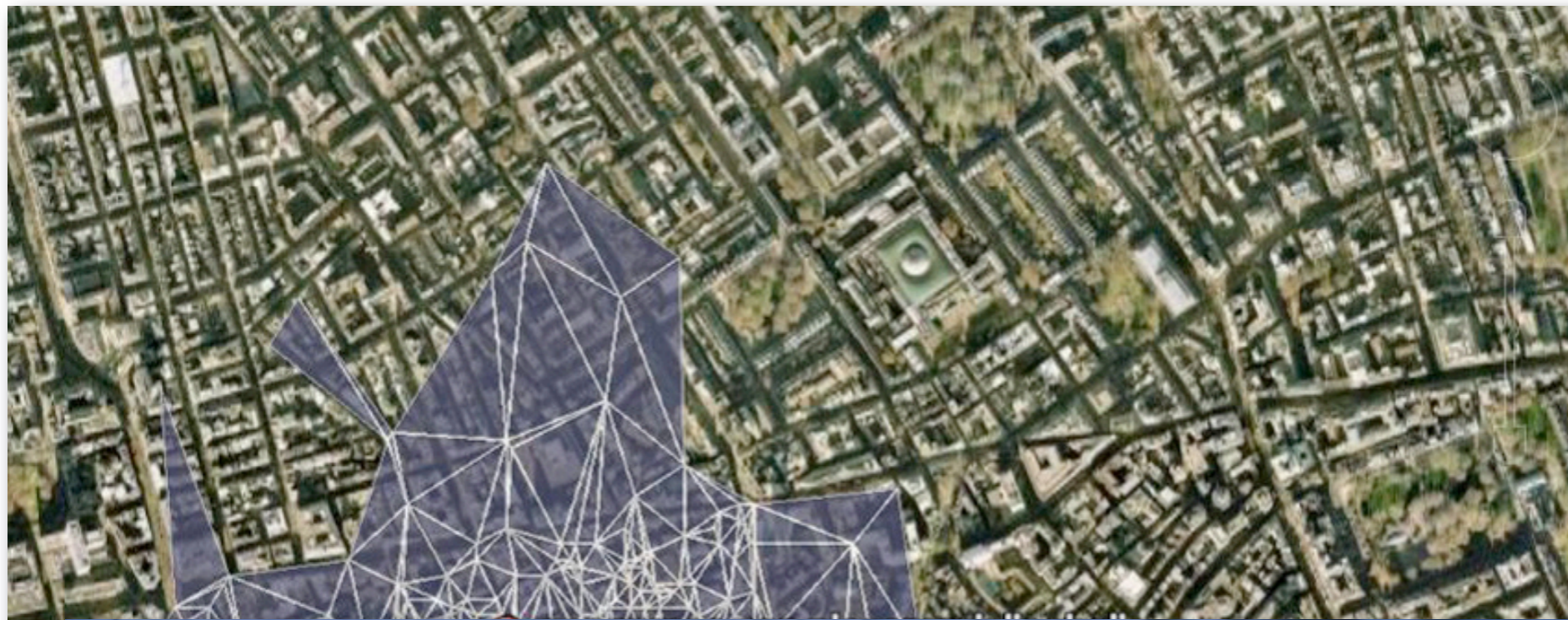
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Bottom-up Semantics

- Identification of common spatio-temporal concepts in UGC
- Not necessarily „explicit“ VGI, but also geotagged photos, blog posts, tweets...
- Trying to find clusters in
 - space
 - time
 - theme





Data SIO, NOAA, U.S. Navy, NGA, GEBCO
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Event Clusters

Fußball-Weltmeisterschaften in Deutschland und Südafrika			
Zeitraum	01.01.2006 – 01.09.2010	Suchbegriff	FIFA World Cup
Tatsächliche Events²⁰	09.06.2006 – 09.07.2006: Fußball-WM in Deutschland	Identifizierte Events	12.06.2006, 15.59 Uhr – 10.07.2006, 02.37 Uhr
	11.06.2010 – 11.07.2010: Fußball-WM in Südafrika		12.06.2010, 12.41 Uhr – 11.07.2010, 23.26 Uhr
Fotos	3416	Fotografen	141

Musikfestival „Wacken Open Air“			
Zeitraum	01.01.2007 – 15.08.2010	Suchbegriff	Wacken
Tatsächliche Events¹⁹	02.08.2007 – 04.08.2007	Identifizierte Events	02.08.2007, 17.07 Uhr – 04.08.2007, 22.54 Uhr
	31.07.2008 – 02.08.2008		30.07.2008, 19.02 Uhr – 03.08.2008, 00.02 Uhr
	30.07.2009 – 01.08.2009		29.07.2009, 19.56 Uhr – 02.08.2009, 00.30 Uhr
	05.08.2010 – 07.08.2010		04.08.2010, 14.30 Uhr – 07.08.2010, 22.08 Uhr
Fotos	2779	Fotografen	60 ⁶

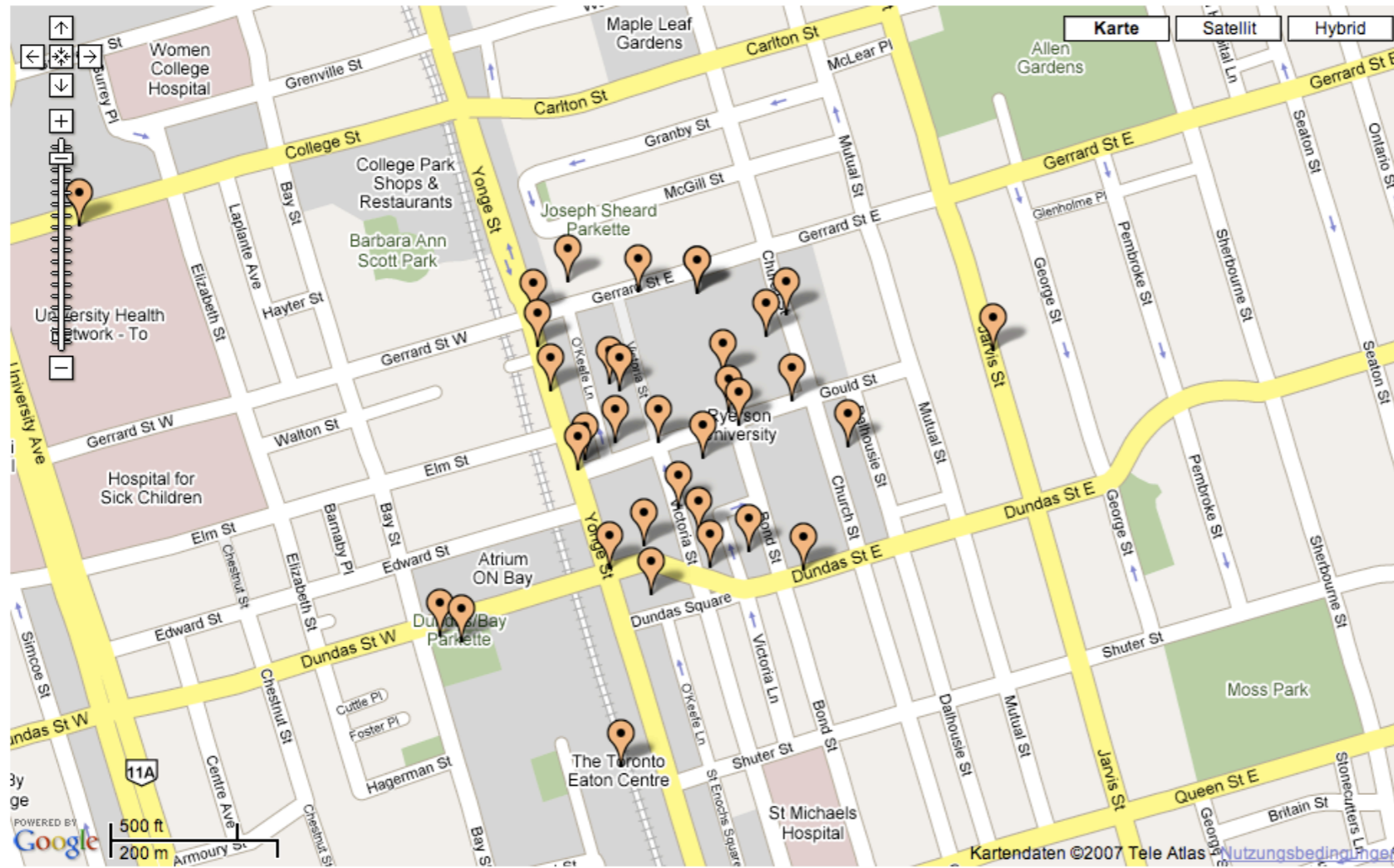
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PGIS

- ArguMap / ArgooMap
- Supports spatial deliberation, e.g.
 - Urban planning
 - Coordination of activities
- Integrated solution with map and forum
- w/ Claus Rinner, Ryerson University, Toronto



[First Step: Define the RU Identity](#)
[Re: First Step: Define the RU Identity](#)
[Re: First Step: Define the RU Identity](#)
[Alternative Energies can be part of RU's identity](#)
[Sports field](#)
[Re: Sports field](#)
[Re: Sports field](#)
[Re: Sports field](#)
[Ryerson needs to reappear](#)
[Re: Ryerson needs to reappear](#)

User19 on March 7, 2007, 20:21

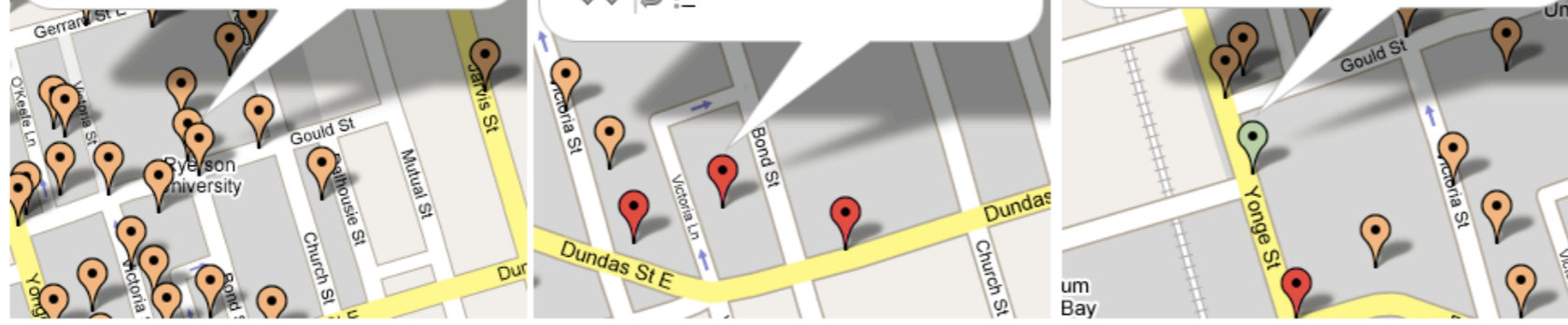
Ryerson needs to reappear

"Ryerson University turns its back on the city. Kerr Hall is separated from the street on all sides by low wall disguised as a wide planter. It has only one direct entrance off the street, at the corner of Gerrard and Church. Open it up!"

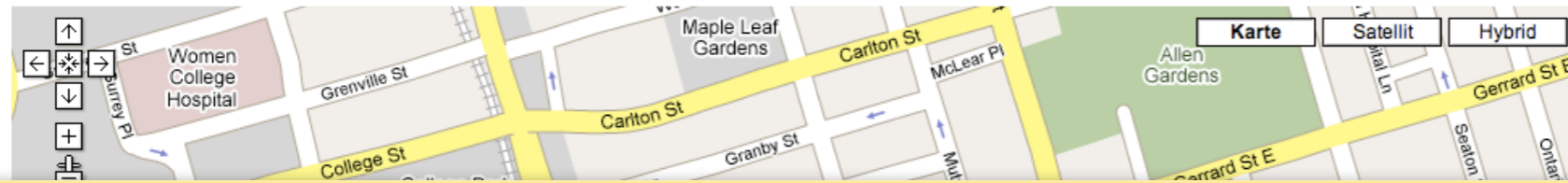
Your name:

Subject:

Your message (use HTML if you like):



Forum
 Ryerson, Toronto



ArgooMap²

[Help](#) [Tips](#) [About](#)

<<<

← Back

Your Name:

Email:

Topic Title:

▶ Geotagging Settings

Geo-Tag

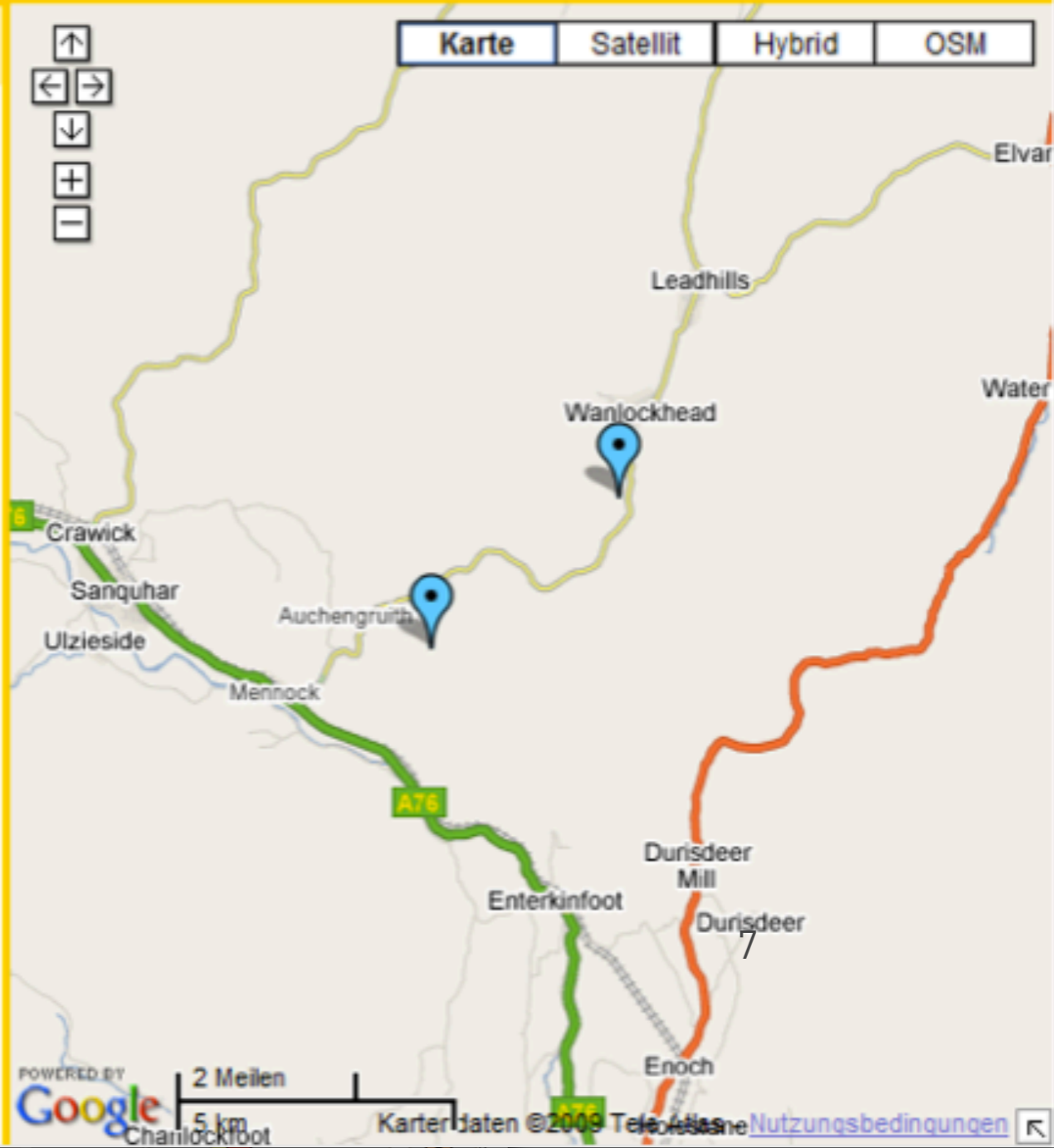
Piece number one was from deep in **Mennock Pass** - which is the main road to **Wanlockhead** from the South. This really is just like the Howgill fells..... I walked past a cottage containing some friendly but barksy collies and a less friendly collie owner, crossed a little burn and heaved myself up the steep grass of **Auchensow Hill**. We followed this by just a bit of manful and **Auchensow Hill** rather cracking grassy moorland to **Cairn Hill** - 449 metres and our first **lyn bag** of the day. We returned to the valley using a shapely little ridge and the estate road which was in the process of being rebuilt

Auchensow Hill

Location Suggestions

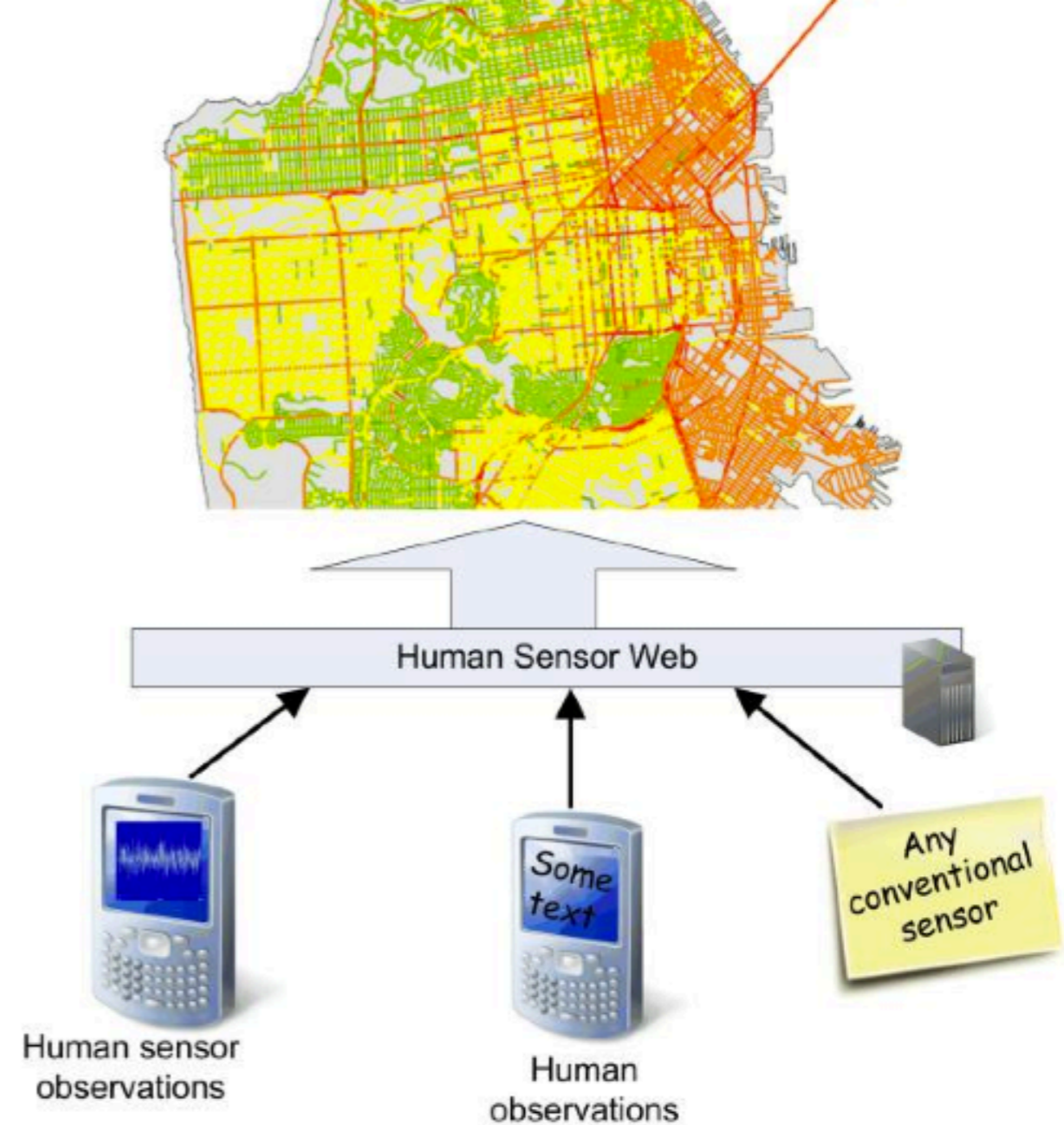
None.

Highlighted words in the text are linked to a location.



Noise Mapping

- Development of a community approach for noise mapping
- Integrates sensor observations and human observations



Trust and Reputation

- Development of metrics to assess trustworthiness of VGI
- Trust as a proxy function for data quality
- Takes spatio-temporal aspects into account:
 - timeliness
 - being on-site
- PhD Mohamed Bishr

Linked Data

- Goal: improve interoperability
- „Lightweight semantics“
(compared to Semantic Web w/ ontologies, ...)
- **Make geodata available to „non-geo“ consumers**
- Applications: Sensor data, semantic enablement for SDIs, OSM **provenance**
- LODUM project (<http://lodum.de>)

OSM Linked Data Wrapper

The screenshot shows a web browser window titled "LinkedOpenStreet Map Browser" with the URL <http://giv-heatmap.uni-muenster.de/osm2rdf/geoext.html>. The browser displays a map of Berlin, Germany, with several red diamond markers indicating points of interest. A pop-up window is open over the Pergamon-Museum, showing the following information:

- [1017975892](#) [x]
- Coordinates: 52.5209304 13.3965997
- Date: 2011-02-15
- Used tool: n/a
- Label: Pergamon-Museum
- Same As: http://dbpedia.org/resource/Pergamon_Mus

On the right side of the browser, there is a panel titled "Additional Information" with a "select sameAs links" button. Below this, it says "Content of http://dbpedia.org/resource/Pergamon_Museum:" followed by a list of options:

- show labels and IDs
- show comments
- show abstracts
- show geographical Facts
- show other Facts
- show photo-links
- show related links

The map shows the Spree river, the Bode-Museum, and the Pergamon-Museum. Other landmarks include the Ampelmann Restaurant, Olla Orient Lounge, and James-Simon-Park. The map is overlaid with a heatmap showing red diamond markers.

At the bottom of the browser window, there is a "Sparql Query [Advanced]" field.

Interests in FP7-ENV

- **Environmental technologies** for **observation**, **simulation**, prevention, mitigation, adaptation, remediation and restoration of the natural and man-made environment
- Protection, conservation and enhancement of **cultural heritage**, including human habitat improved damage assessment on cultural heritage
- **Technology assessment, verification and testing**



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Thanks!

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