

## Report of ISPRS Joint Workshop on “Pervasive Web Mapping, Geoprocessing and Services”

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The 1<sup>st</sup> International Workshop on Pervasive Web Mapping, Geoprocessing and Services was successfully held on Politecnico di Milano campus in Como, Italy from August 26 to 27, 2010. The workshop was organized by ISPRS WG IV/5 on “Distributed, Web-based Geoinformation Services and Applications” and Politecnico di Milano, and co-organized by ISPRS WG IV/1 on “Geospatial Data Infrastructure”, WG IV/4 on “Virtual Globes and Context-Aware Visualization”, and ICWG IV/II on “Geo-Sensor Networking and GEOGRID”. The main theme of the workshop focused on Sensor Web Enablement and Geoprocessing Services. However, papers covering many aspects of Pervasive Web Mapping, Geoprocessing and Services were encouraged and presented, especially on the following topics:

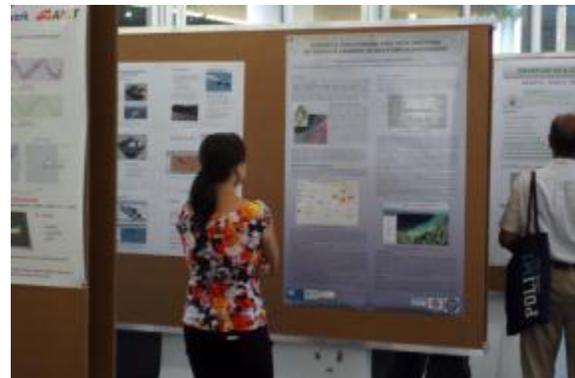
- Sensor web enablement
- Open source solutions and open standards/specifications
- Geospatial web architecture and system design
- Geospatial web semantics and ontology
- Adoption of new and advanced web technologies
- 2D/3D visual effects, digital globe and geovisualization on the Internet
- Neogeography and map mashups
- Intelligent web mapping/GIS services
- Geoprocessing services
- Web-based virtual and collaborative geospatial environments
- Web-based SDSS and PPGIS
- Mobile and ubiquitous geospatial services and applications



The two-day workshop was very much focused, organized in a single track technical session. There were 73 abstracts submitted in total and among them 30 were accepted for oral presentation and 20 were accepted for poster presentation. 42 full papers were submitted and included in the workshop

proceedings CD as well as ISPRS Archive (Volume Number XXXVIII-4/W13). The Archive volume can be accessed at: <http://www.isprs.org/proceedings/XXXVIII/4-W13/index.html>. Some of these papers have been selected to go through a peer-review process for possible publication in special journal issues on Transactions in GIS and Applied Geomatics. The workshop attracted 85 participants including researchers, students, and professionals from 19 different countries across continents.

The workshop opened with a welcome greeting by WG Co-Chair Maria Brovelli and Chair Songnian Li, followed by technical sessions on “Sensors Web”, “Web Processing”, “Web Visualization”, “Geoweb Services”, “Case Studies”, and “Web mapping, Collaborative GIS and LBS”. WG Co-Chair Bert Veenendaal chaired the closing session and presented a summary and a reflection of the discussions occurred during the technical sessions. After luncheon on the first day of the workshop, a presentation of the NGO "Academics without borders" was given by Prof. Robert Laurini, the President of USF-AWB. All technical sessions were well attended and were very informative and interactive. It was felt that Q/A times were limited after each presentation. All posters were displayed for two days in the hallway where luncheons and coffee breaks were offered, which fostered good interactions between poster presenters and workshop participants. The poster presenters were given 3 minutes to brief their research in front of all participants in a session.

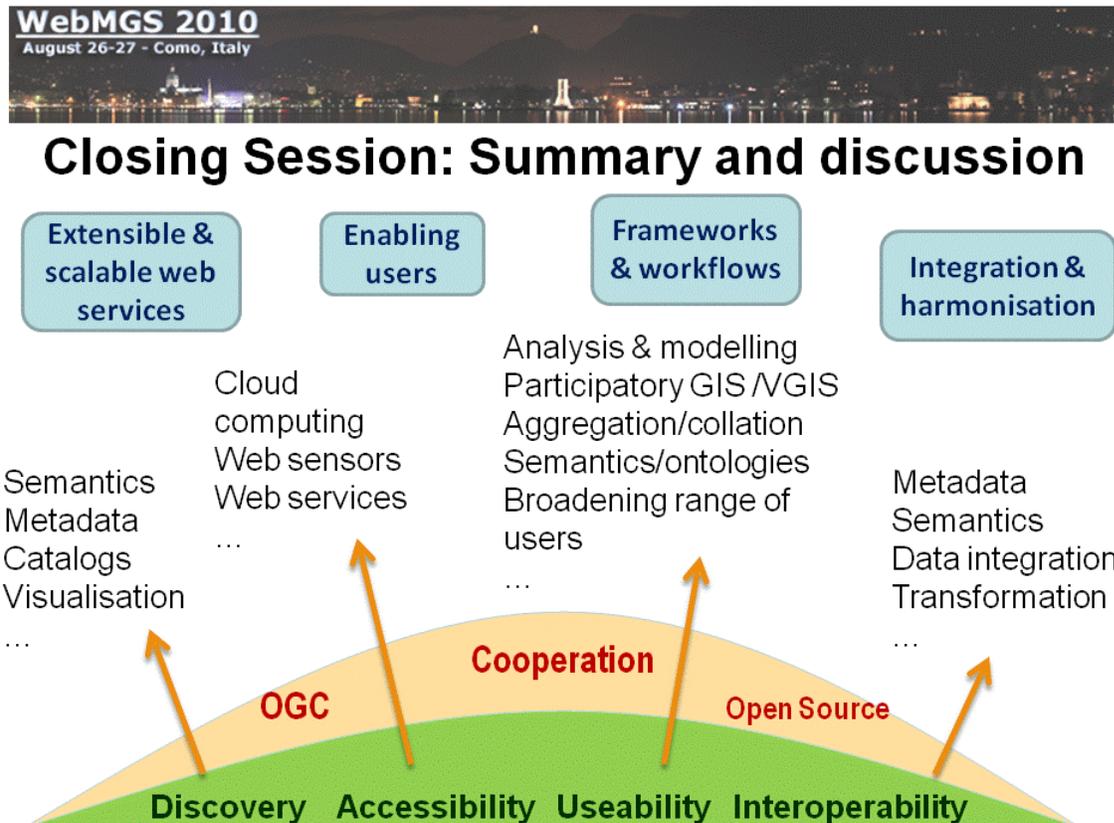


The technical sessions covered a range of topics in relation to sensor web, web processing services, workflows, web visualization, collaborative GIS, mobile mapping, etc. Some of the particular topics and issues addressed in the technical sessions included:

- Sensor web: integrating OGC standards and developing interfaces for sensor observation services, developing interface descriptors for fire/cloud/wind sensing, sensor web frameworks, utilizing citizens as rich sensor data sources.
- Web processing services (WPS): revenue models for services in the cloud, open source server side platforms, data integration workflows, security and scalability for geoprocessing in a cloud, chaining of web services, agent-based models in web services, ontologies.

- Workflows: developing tools and workflows for models and data integration in a geoprocessing services environment, man/machine interfaces.
- Web visualization: developing 3D geospatial web services, frameworks, and architectures for 3D models, DTMs, visibility and visual impact analysis, temporal analysis.
- Collaborative GIS: Addressing ranges of users and involving them in participatory processes, public participation, traffic sensors and monitoring, smart environments for identifying user behavior and context awareness.

The following figure gives a general overview of the topics and issues addressed in the workshop. Details of the paper presentations can be found at <http://webmgs2010.como.polimi.it/programme.php>.



The local organizing committee organized a welcome cocktail reception at Palazzo Natta (right in the center of Como old town) on Aug 25, 2010, a social dinner on Aug 26, and a guided city tour of Como on August 28, 2010. Maria Antonia Brovelli, Marco Negretti, Sara Lucca and Luana Valentini from

Politecnico di Milano as well as Giuseppina Vacca from Italian Society of Photogrammetry and Surveying are much appreciated for their hard work in making this event a success!

For further information on this workshop and future workshops in the series, please visit:

WebMGS2010 website: <http://webmgs2010.como.polimi.it/index.php>

ISPRS WG IV/5 website: <http://www.commission4.isprs.org/wg5/>

