

BE SPATIAL: GIS PLANET 2005 CONFERENCE

A Global Geographic Information Society

As successor to the first GIS PLANET 98 conference, Planet 2005 took place in Estoril, the scenic beach resort on the Atlantic Ocean southwest of Lisbon, Portugal from 30th May to 2nd June. The aim was to stimulate convergence of international efforts and interests in a collaborative strategy supported by a growing informal network of those actively involved in the spatial arena.

The conference theme "Be Spatial"™ - indicated how every delegate might play a role in the development of the global geographic information society. No aspect of geospatial is excluded from participating. This was reflected in the variety of subjects explored in 38 technical sessions and ten workshops, which included metadata and geodata webservices, dynamic GIS, exploratory modelling to spatial information diffusion, data awareness, and geospatial tools and techniques for coastal management. In particular, mobility poses new challenges for geographic information, demanding that geographic databases deal with spatial and temporal variability and setting the scene for many new applications.

Global Technology

Prof. Michael F. Goodchild of the University of California, Santa Barbara and chair of GIS PLANET 2005 in a keynote speech gave his views on the globalisation of GIS. Since GIS had emerged from its "island state" and become linked via the internet to other GIS users it was about time to ask, "is GIS a global technology?" And indeed, there were both longitudinal and latitudinal aspects that made it truly global. There were global geo-databases that made it global, and there were applications to planetary issues wherein GIS became a system with which we monitored the Earth. We had organisations like Digital Earth (see GIM International July 2005, pp 7-9 and 36-37) and GIS Planet organising this conference. Upon what basis, then, should we judge GIS to be "global"™? GIS was now a universal language, he said. There were institutions in existence like GSDI, UNEP, ISWCGM, ICA and others, which made GIS global, and there was geospatial technical co-operation, giving GIS a global aspect. But, he warned, we also encountered global problems here. Rasters could work only on a flat surface and, up until now, there was the possibility of GIS only projected onto a sphere, which involved very difficult spherical or ellipsoidal geometry. But there was a better way to begin with a global GIS, he insisted: first throw out a lot of previous philosophies.

GIS as Video Game

Continuing, Goodchild drew attention to Google Keyhole, with its interface for a ten-year-old child, allowing zoom, fly and so on. There were other similar options with similarly simple interfaces: NASA's World Wind, Microsoft, ESRI's ArcGlobe. All these underlying data models allowed for smooth pan and zoom and could handle enormous data volumes. Turning to grids on the globe, he remarked that grids could not exist on a curved surface. One successful story of geo-data access was the Geolibrary concept used in the new Alexandria (Egypt) Digital Library Project. Another aspect of global, according to Goodchild, was the rise of geoportals between 2000-2005. There you had a single point of access (US Geospatial One-Stop) offering both data and services and there you could find "live data"™ published by providers to the website and allowing automated metadata harvesting.

Research Agenda

Goodchild put forward the following issues for the global geospatial research agenda: horizontal and vertical edge matching, user-interface design and, very important, rendering non-visual social variables in order to show elements in GIS that cartographers have shown in the past. Another important aspect was interfacing global and local standards. This would force development of a global vision for data exchange, not just for the USA or the European Union, and implied global data collection, a one-stop-shop for the planet Earth, a global gazetteer and geobrowsers, which are not yet available, in spite of efforts by Google and Metacarta.

Special Session

During a special session, Dr David Maguire, director of Products, Solutions and International business at ESRI gave an overview of the present state and future developments of ESRI products. His plenary presentation focused on 3D, cartographic, deterministic GIS modelling. He noted new and interesting trends in geospatial developments, from deterministic to probabilistic, from static to dynamic, from 2D to 3D and even 4D, and the move from small datasets to the ability to handle very large ones. Other developments were the rise of complex systems to assist scientists and decision-makers, for instance Earthsat to track environmental change.

Address Workshop

This EUROGI Address Referencing Geo-Information Infrastructure workshop was co-ordinated and led by Morten Lind of Denmark and António Arnaud of Portugal and aimed to present and explain the importance of address-referencing systems as an information

infrastructure. Special attention was given to address-quality assessment, a topic considered essential for the European Union INfrastructure for SPatial InfoRmation in Europe (INSPIRE) project. Examples of several addressing systems and European street-and-address data-bases were given from Denmark and Portugal. From the Czech Republic came an example by Petr Kriha and Ivana Chalupova. Following the presentations was discussion on possible or needed solutions within a united Europe. Arnaud gave an interesting overview of the time link between geospatial information and physical infrastructure developments throughout the centuries, from mapping Roman roads and aquaducts to the cartography of fifteenth to eighteenth-century voyages of discovery. He proceeded to Napoleonic land-cadastre mapping and on to the beginnings of railway mapping, before even faster highway and airport mapping emerged to develop towards high-definition image satellites and GPS making possible even more accurate mapping. And then there was the most drastic modern-day change: from physical infrastructure to the information highway via internet. (For an example of address-referencing geo-information over the internet check the website of Quickaddress.)

EU Industry Day

During this conference the EUROpean Umbrella Organisation for Geographic Information (EUROGI) held its second European Union Industry day, a gathering of leading European GI industry representatives to discuss possibilities and ideas on GI and data availability and how to move forward. Interesting presentations were given by the private sector, including one by Pirkko Saarikivi of Finland, chief executive officer of a private weather bureau, who rather disconcertingly remarked that weather data for Europe was much more available and reasonably priced in the USA than within Europe itself. Daniela Florea, CEO of a private UK mapping company, gave a strong plea for European GI generating authorities to wake up to the needs of the private sector. Did freely available data boost business? This was contradicted by the success stories of private companies like NAVTEQ, TeleAtlas and TomTom: yes there were boosts, but you paid heavily for the data. A discussion led by EUROGI president Jean Poulit produced the questions, what are the main geographic-information markets, what are the legal and financial obstacles, which data do we really need and is the right data available? EUROGI has an advisory, working group for datasets for navigation, building rights, agriculture and meteorology. However, a contradiction arose here because the INSPIRE concept was government directed. It should therefore clearly state which data was destined for the private sector and which for government.

Social Event

Perched above the old Moorish quarter on the highest of Lisbon's seven hills, the Castelo de S o Jorge or Castle of St George was until the fifteenth century the royal residence. A beautiful dinner here crowned a splendid four days conference.

<https://www.gim-international.com/content/article/a-global-geographic-information-society>
