

GEOGRAPHY AND GIS: COMMUNICATING OUR WORLD

ESRI International User Conference

The 26th Annual ESRI International User Conference was held from 7th to 11th August in San Diego, California, US. The theme of the conference was "Geography and GIS: Communicating Our World."™ The key message from Jack Dangermond: "Our world needs better understanding, and GIS is the medium that helps us communicate and understand it."

A crowd of around fifteen thousand people from nearly 130 countries participated in the event. Fifteen thousand: that's an impressive, an almost unbelievable figure, and when Jack Dangermond calls the ESRI User Conference the largest GIS event in the world he is most certainly not indulging in hyperbole. Over a thousand papers were scheduled for presentation during forty parallel tracks. The subjects covered a wide range of topics, varying from the reconstruction of Greco-Roman and Coptic structures from overlapping images using ArcGIS and Stereo Analyst, to using GIS for determining the effects of changing bus routes. The last looked at effects on the poor and elderly people in Maryland, USA, using US Census 2000 tract data. It was a pity that so many speakers failed to show up and some sessions even had to be cancelled.

New Way of Thinking

Jack Dangermond delivered his keynote address during the plenary session on Monday, the opening day. To enable the immense crowd to see more than just a vague glimpse of the speaker, three huge video screens displayed him in close-up, so that one got the feeling the ESRI president and founder was speaking to you personally. "Geography and GIS: Communicating Our World," he said, gave us "a new medium for understanding our growing physical and cultural knowledge of our world" and was also an "integrative framework" for approaching many of the threats faced by the planet, including global warming and safety. To meet these challenges, participation and greater understanding of one another was needed; and also a shared sense of responsibility, courage and will to act. Showing pictures of world leaders such as Nelson Mandela, Dangermond emphasised that collaborative efforts and strong leadership were needed. "GIS is influencing how we see things and how we do things in response." The web would be the new platform for sharing, integrating and leveraging geographic knowledge. The web would enable people around the world to share maps, data and the results of data analysis, introducing "a whole new way of thinking about GIS". The geographically enabled web, dubbed by Dangermond the "geo-web"™, would "exchange the way we do things and the way we talk about them". Google and Microsoft were already enabling people to interact with geographic information in fast and intuitive ways, by introducing dynamic and continuous content. On the other hand, judging by the geographic illiteracy of American schoolchildren, many people today were not very geographically aware, and this meant education in geography needed revitalising.

New Release

During the plenary session, a demonstration of ArcGIS 9.2, scheduled for release this autumn, was also given. The new release will have expanded CAD interoperability, including improved default CAD-feature rendering, dynamic geo-referencing of CAD files enabling moving, rotating and scaling of CAD files using the mouse, and CAD integration with Survey Analyst. During the remainder of the conference too CAD and GIS integration proved a popular topic. The 9.2 release will support complete cadastral workflows and is the release which brings ArcGIS to the web. According to Dangermond, more than a thousand person-years had been invested in evolving ArcGIS from version 9.1 to version 9.2, making it one of the biggest releases in terms of manpower ever seen from ESRI, and the aim was to improve quality and productivity. Several thousand bugs had to be fixed on the way.

Awards

The President's™ Award was presented to the Ordnance Survey of Great Britain and given to director-general and CEO Dr Vanessa Lawrence. Having joined OS in 2000, Vanessa Lawrence has been instrumental in making digital map data available to the millions, introducing e-business and building "one of the largest and most successful GIS systems". For her visionary and vigorous approach she has previously been awarded six Honorary Doctorates and an Honorary Fellowship of University College London. Others whose exemplary work was acknowledged were Dr N. Vijayaditya, director-general, and Dr Vandana Sharma, senior technical director of the National Informatics Centre of India, for building a national infrastructure of geospatial information.

Bridging the Gap

The conference was preceded by the annual Survey and GIS Summit, held during the weekend prior to the conference. About four hundred people, mostly land surveyors and the majority of US origin, participated in the summit. The theme this year was "Bridging the Gap"™, the gap here referring to the reluctance of the surveyor to use GIS, his ignorance of the huge possibilities offered by this sophisticated technology, and the communication gap between him and the GIS user. Does such a gap really exist? This was one of the

main questions addressed during the plenary sessions on Saturday. According to keynote speaker Brent Jones, ESRI Surveying Industry manager, it existed more in our minds than it did in the real business world. He also recognised that surveyors were not at all ignorant, because they knew a lot about GIS.

Another keynote speaker, Wendy Lathrop LS, thought there had indeed once been a gap; this was due to GIS users not caring too much about data-quality issues, partly because they were studying small-scale phenomena. But in the course of time, she said, they had learned to appreciate high-precision data, especially as framework data, and that was where the surveyor came in.

Addressing his afternoon audience, Clint Brown, director of software products, said GIS users were increasingly acknowledging the importance of the high-accuracy data delivered by surveyors. “We depend on you guys to make GIS work,” he said. If there was a gap to be bridged, it was the canyon that yawned between land surveyors and high-school youngsters who collectively refuse to step into the surveying business. The average age of the US land surveyor was 57. That meant there was only a very small influx of novices into the surveying profession. Was it the technology used by the surveyor that was the issue, or was it the profession itself? Many saw surveying as a weird profession with a dusty image. How to turn around the downward trend? Was education the answer? Should the profession be better promoted?

Exhibition

On the exhibition floor, around three hundred firms demonstrated their products and services. Of course, ESRI occupied a significant part of the space. Images, both airborne and space-borne are becoming increasingly important sources of GIS input. Although most GIS users are familiar with vertical images, images taken from an oblique angle are attracting growing interest in terms of visualisation of urban and hilly rural areas for a variety of applications, including planning and decision-making. Earth observation from space has arrived at the age of maturity, whilst increasingly competitive micro-satellites are being launched, able to deliver images with high spatial and temporal resolution. An example of the latter is the initiative by RapidEye, a German company, to launch five optical sensors into separate orbits in early 2007. This quintet will be capable of capturing every spot on Earth every 24 hours.

The 2007 User Conference will be held from 18th to 22nd June, again in San Diego, California, US.

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