

EDUCATION-COMMUNICATIONS EVENT REPORT AND RECOMMENDATIONS

Attendee's and Report Writer's Name:

**Joseph Kerski, Geographer:
Education/GIS, Denver, Colorado.**

Event:
GeoTech Western Slope

Location: Mesa State College, Grand
Junction, Colorado

Event Date: 5 April 2003

Summary

To better enable Colorado and Utah social studies and science educators at the K-12 and university level to use geographic technology in the curriculum, Mesa State College, ESRI, the Colorado Geographic Alliance, and the USGS co-sponsored "GeoTech Western Slope" on 5 April 2003 at Mesa State College in Grand Junction.

Participants conducted and attended workshops at the conference that incorporated geographic information systems (GIS), Global Positioning Systems (GPS), and the Internet at the primary, secondary, and college levels. These technologies have been effectively used in interdisciplinary teaching of geography, environmental studies, mathematics, history, earth science, and chemistry.

This conference illustrated (1) the excellent results that come from a multi-organization partnership (USGS, Mesa State, ESRI, COGA), and (2) how GIS can bring together educators from multiple disciplines and educational levels, (3) the enhancements that arise from students attending the conference along with teachers and professors, and (4) the added benefits of bringing in professionals from the GIS community. We had

representatives from the USGS, ESRI, Mesa County, Mesa State College, the US Army Corps of Engineers, National Park Service, and the BLM.

We and the conference participants were interviewed by two television stations during the day, and KREX-TV Channel 5 featured us on the news that evening!



Joseph Kerski at Mesa State College.



Dr Verner Johnson, geosciences and GIS professor at Mesa State, was our on-site host of the conference. He also conducted workshops during the conference and helped immensely with the organization and publicity.

Reasons for the Workshop

The reasons for holding the workshop can be

summed up in the statement from the flyer for the conference, below. The convergence of educational issues with the scientific and GIS professional community has been increasingly evident in recent years.

Join us...

As the world becomes ever more connected, managed, and observed through the use of computers and other technologies, students have opportunities like never before to have the world at their fingertips – whether using the Internet, geographic information systems (GIS), the global positioning system (GPS) or satellite imagery. What better opportunity could classroom teachers have to instill in students a curiosity about geography, science and their world than by using these increasingly available tools?

The highlight that I submitted to the USGS and the US Department of the Interior and the White House reads as follows:

USGS Co-Hosts GIS Workshop: The USGS, the Colorado Geographic Alliance, and ESRI are co-hosting a geographic information systems workshop for educators at Mesa State College in Grand Junction, Colorado, on April 5. The workshop will present GIS technology for science, mathematics, and social studies educators. GIS professionals will illustrate how GIS is used in science, business, and engineering (Joseph Kerski, Denver, CO, 303-202-4315).



Approximately 40 participants gathered for GeoTech Western Slope. Participants were from Colorado and Utah.



Mesa County was chosen as the location for this conference because the previous two GeoTech conferences (2001 and 2002) were held on the Eastern Slope, in Monument, Colorado. We wanted the western slope educators to be able to participate in a conference closer to where they work.



Above, Rick Corsi, GIS coordinator for Mesa County. Rick operated an information table, gave away maps and data, conducted a workshop, and spoke with conference attendees about how GIS is used for critical decision-making at the county level. It was excellent for people to see how GIS helps make everyday decisions in their own community.



Above, Joseph Kerski discusses materials in the USGS information exhibit with conference participants.



Esther Worker from ESRI hands out prizes at the end of the workshop to participants. These prizes included books and a K-12 ArcView site license!



Above, Eric Aiello from the National Park Service speaks to the conference attendees. He conducted an excellent GIS-based habitat suitability analysis on the Colorado National Monument with the participants.



Lunchtime at the conference provided an excellent time of networking among the participants.



I handed out GIS-based lessons that I and others have written, guidelines on the use of spatial data in a GIS, free maps, aerial photographs and satellite images, flyers on future GIS institutes, and other related materials.



About a dozen middle school students attended the conference. I had met two of them at the Colorado Science Olympiad in early March in Colorado Springs. We were very pleased that they attended, because it fosters student-teacher interaction and helps educators to realize that students take to GIS quite easily.



Conference registration desk.



Student examining USGS aerial photos and topographic maps in Terraserver.

Partnership between USGS, COGA, and ESRI

The USGS has had a longstanding relationship with the Colorado Geographic Alliance (COGA). Their web site is <http://geography.unco.edu/COGA>. We have participated in all COGA conferences with both exhibits and workshops since 1995. The state geographic alliances are organizations established during the 1980s. They were originally supported by the National Geographic Society for the furtherance of geographic education.

Colorado's alliance is one of the original groups begun in 1986 and includes over 6,000 teachers, professors, and others interested in geography education. We have also supported other state geographic alliances, such as with workshops that I have conducted in Iowa, Nebraska, Texas, Wyoming, Montana, and ones in Tennessee by Roger Barlow. Through the geography education list serve at the Association of American Geographers, I have worked online with other geography alliance members across the USA.

We have worked with the ESRI Education Team since 1994, co-teaching workshops, promoting GIS education, and developing

curricular materials. They are an excellent group to work with and Esther Worker, in particular, has been extremely supportive of educational GIS.

The next event we will work on together is GeoTech at the Technology in Education conference, www.tie-online.org, in Copper Mountain, Colorado, 22-23 June 2003. We will hold two days of GIS, GPS, and geocaching on the mountain slopes! Rocky Mountain URISA has donated 10 scholarships for educators for this event.

We also plan a three-day follow-up to this conference in August 2003 at Mesa State College.

GeoTech Western Slope Conference Description

The structure of GeoTech Colorado was as follows:

- All-hands introduction
- 2 to 3 concurrent sessions in morning
- Lunch
- 2 to 3 concurrent sessions in early afternoon
- 2 to 3 concurrent sessions in late afternoon
- All-hands Summary and Door Prizes

The hands-on workshops included: Introduction to GIS, Web mapping, GPS, A lesson from the Mapping Our World book from ESRI Press, Mesa County analysis, population studies, earthquakes and hurricanes analysis.

Approximately 40 people attended GeoTech Western Slope. The evaluation forms that were returned to us were overwhelmingly positive. It is a pleasure to be working with such a motivated, intelligent group of educators.

Observations and Recommendations

By participating in this meeting, we sought to:

1] Further our partnerships with educational organizations to increase science and geography literacy on a regional and national level.

2] Highlight data, research, and tools for exploring digital data and real-world problems with GIS, GPS, and remote sensing.

This conference showed that much publicity is needed to bring educators to an event like this. Once they attend, however, they usually desire additional training and curricular materials.

The USGS and other organizations have a wealth of data sets, programs, and research efforts that this audience was interested in, training that we conduct, and projects with the educational community. I recommend that the USGS pursue education as integral to its mission. Education shows our relevance to Congress and the general public. Education affects future generations of scientists who will support our agency and work for the USGS. Education serves the needs of diversity, and recruitment, and forms partnerships that are far-reaching.

Working with the geographic alliances and with the educational partnerships described here provide ideas to our own organization and contribute to the geographic and scientific literacy of the nation, helping individuals make sound decisions that affect the future of our society. Working with ESRI is important as GIS and education becomes increasingly a part of our organization. Working with Mesa State is important as we build bridges for future collaboratory work, such as with the USGS internship program and with The National Map.

Acknowledgements:

I would like to thank the following individuals:

Esther Worker (ESRI), Drake Jandreau (Palisade High School), Sophia Linn (COGA), and Verner Johnson for their excellence during the past 9 months in organizing and planning this event.

Eric Aiello (NPS) and Rick Corsi (Mesa County) for their support of the workshop and for ensuring its success.

Mesa State College staff and faculty for hosting the event and providing a top-notch facility and GIS laboratories, including Verner Johnson, Velda Bailey, Michael Meens, and Nobey Kagayama.

Mary Wadding for her help with the materials for the conference.

The attendees—teachers and students—who made the conference a success.



Grand Junction, Colorado, site of the GeoTech Western Slope event.

*** End of GeoTech Western Slope
2003 Report ***