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A Monthly Newsletter of the National Geospatial Technology Center of Excellence

Innovation in Geospatial Science and Technology Education   **Empowering Colleges: Expanding the Geospatial Workforce**

In this issue:

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The GeoTech Center website is:
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The GeoTech Center is virtual, comprised of a Director, four Associate Directors, and nine Assistant Directors from institutions across the nation. The central office is located at Jefferson Community and Technical College in Louisville, KY.

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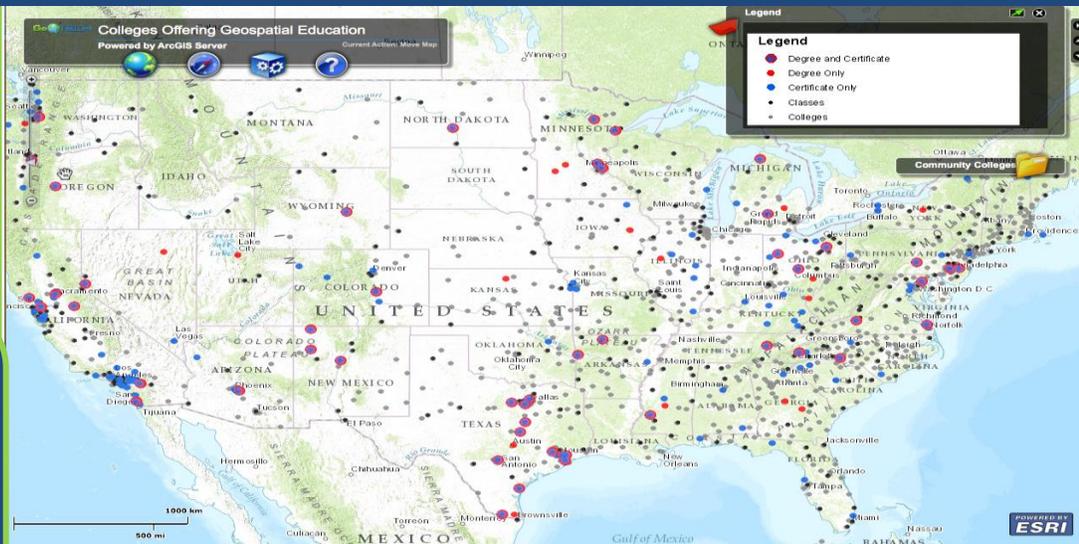
GeoTech National Mapping Contest 2014!

The Contest

The GEOTech Center will be hosting a national mapping contest for students at accredited 2 year colleges who are registered during the Spring 2014 semester. The 2014 GEOTech National Mapping contest will be held in three phases beginning February, 2014. The first phase will involve entrants taking a multiple choice test covering geographic information systems, remote sensing and GPS/GNSS theory. The score that each student earns will be carried over into the second phase of the contest where students will create a YouTube video that describes the purpose, data, and analyses used on a project of their own choice. Students will be able to choose from 2 categories for their project: Dynamic Mapping Applications (i.e., web based) or Static Maps (posters). Project presentations will be judged and scored by a panel of geospatial practitioners, educators, and cartographers who will select 5 students with the highest combined scores. The third phase will have the top 5 scorers present their projects in the Final Round (Phase 3) at the 2014 EDUC Conference in San Diego, CA. (July 12-15, 2014). Travel, lodging, and meal expenses incurred by the student will be covered by the GEOTech Center.

Registration

Registration for the 2014 National Mapping contest will take place through *LinkedIn* beginning January 1, 2014 (http://www.linkedin.com/groups?home=&gid=7425740&trk=anet_ug_hm).

Students must create a profile on the GEOTech National Mapping Contest site (search GEOTech National Mapping Contest) before they will be allowed to take the online exam or enter their project. The online profile must include the entrants name and school, an appropriate (i.e., professional) image, and any pertinent contact information. Once students have created their on-line profile they will be allowed to take an on-line exam beginning January 15th.

Exam Questions and YouTube

Exam questions, drawn from geospatial educators and practitioners from around the country, will cover a variety of topics from the disciplines of geographic information systems, remote sensing and GPS/GNSS systems. Questions on the written exam will focus on the theory and applications of geospatial technology and will not focus on any single platform or process. After completing the online exam students will move onto Phase 2 of the contest where they will create a YouTube video that describes a project of their choosing, identifies the purpose of the project, the geospatial tools and analyses used in the project.

An informational webinar will be conducted on February 5th. If you have any questions, please contact Scott Jeffrey at sjeffrey@ccbcmd.edu.

GeoTech Educator Award

Nominations to Recognize Geospatial Educators and Partners Due by January 15

The GeoTech Center needs your help to recognize educators and partner organizations that have worked hard to support two-year college geospatial education programs and foster student success. The GeoTech Center's National Excellence in Geospatial Education Awards program includes three Award categories to recognize individuals for Lifetime Achievement In Geospatial Two-year College Education or for Distinguished Geospatial Educator of the year and partner organizations (industry, government, professional) with a Distinguished Geospatial Education Partner Award. Awardees will be announced at the GeoEd conference in June in Kentucky and at Esri Educators Conference in July in San Diego. Details of the Awards program and easy to complete online Nomination Form are available on the Award Button at the GeoTech Center website. Your nominations are due by January 15, 2014. If you have any questions about the Awards program or filling out the online Nomination Form, please contact Ann Johnson at ajohnson0847@kctcs.edu.

Building a Community of Practice

Building a Community of Practice (COP) focused on GIST education at two-year colleges will be a key component in the sustainability of the GeoTech Center. A COP is defined as a *group of people who share a common concern, a set of problems, or interest in a topic and who come together to fulfill both individual and group goals*. Professional development and mentoring will be key components of the COP plan. The COP, through the leadership of a national advisory council and input from a national visiting committee, will help foster relationships between the GIST industry, government, and educators to create a GIST professional society that will support and advance GIST education at two-year colleges. We encourage ALL geospatial educators (primary or ancillary) and geospatial professionals to join the Community.

In order to become a member of the GeoTech Center COP, please visit www.geotechcenter.org/Partners/Become-a-Member-of-GeoTech-s-Community-of-Practice.
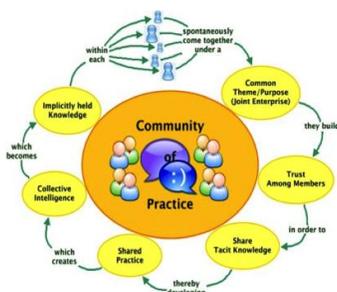
community.mis.temple.edu

"The Heart of GIS is Integration"[1]

By Wing Cheung

In this year's ESRI Pacific User Meeting (November 21, 2013, Redlands), keynote speaker and ESRI President, Jack Dangermond, emphasized the importance of **Integration**. In particular, he envisioned GIS as a tool that enables the integration of epistemology across academic disciplines, computing platforms, data types, and organizations.

As an educator and a GIS user, it is evident that GIS can be used to integrate and create knowledge across a number of disciplines. One example of this would be the use of GIS in public safety and psychology, where GIS can be used to extend upon Donald Appleyard's work on Livable Streets[2] by analyzing the relationship between landscape characteristics (e.g. street width, traffic volume, proximity to major intersections) and individuals' perceptions of private space. Specifically, Appleyard (1981) found that adverse landscapes (i.e. heavy traffic volume) tend to decrease the area that an individual considers his or her private space as well as reinforce social isolation.

In the area of computing platforms, Dangermond repeatedly emphasized that the recent advances in GIS is merely accelerating the pace of technological integration. Specifically, he painstakingly countered the myth that ArcGIS Desktop is slowly being replaced by ArcGIS Online. He reiterated that Desktop will always be the primary platform for authoring contents, which may be managed by ArcGIS server, and ultimately accessed as a service by web clients such as ArcGIS Online. Given the specialize roles of the three platforms (i.e. desktop, server, web), Dangermond stressed that integration will maximize the power of GIS.

Lastly, in the current age of big data, GIS can be used to integrate different types of data (e.g. social media, imagery, maps) and facilitate collaborations between users from different organizations. One example of this is Tomnod (www.tomnod.com), where the integration of online mapping, crowdsourcing, and satellite imagery empowered the public to identify and assess damages caused by natural disasters, thereby assisting governmental officials in their recovery efforts and damage assessments.

As new technologies and knowledge are discovered through research, there is an increasing need to focus on the integration of these new findings. The use of GIS as a tool for integration will not only maximize the return on research investments, but may also give rise to new knowledge and applications that may be otherwise overlooked.

[1] Dangermond, Jack. "ESRI Pacific User Meeting." ESRI Conference Center, Redlands, CA. 21 November 2013. Keynote Address.
[2] Appleyard, Donald, M. Sue Gerson, and Mark Lintell. *Livable Streets*. Berkeley: University of California, 1981. Print.