Educational Tools and Lessons to Improve Remote Sensing and GIS Workflows

Thomas Mueller

1California University of Pennsylvania

Remote sensing and GIS workflows, involving heterogeneous sensors, tools, applications, and participants, flourish when better understood through collaborative visual analytics, efficient comparative execution, and consensus building.

In this context, members of the AmericaView consortium have moved forward in producing remote sensing educational tools and lessons.

Tom Mueller of PennsylvaniaView has collaborated with NatureServe and FEMA for service learning projects. Rebecca Dodge of TexasView is using satellite imagery over State Parks to develop standards-based learning activities for Science teachers at the Middle and High School levels. Pia van Benthem of CaliforniaView developed an educational online tool for K-12 grades, aligned with the Next Generation Science Standards and focused on land cover and land type change detection utilizing USGS Earthshots Landsat imagery. JB Sharma of GeorgiaView will discuss the need for modern remote sensing curricula that effectively integrates novel content, technology and active-learning pedagogy to incur lifelong learning in GiScience students. Any student’s relevant skills for remote sensing in the 21st century require this curricular re-engineering. To increase collaboration in remote sensing students’ access to heterogeneous workflows, Jason Tullis of ArkansasView is developing concepts and tools for curation and interchange of geospatial provenance.

Panel Members:
Thomas Mueller, PhD, California University of Pennsylvania, Moderator
Rebecca Dodge, PhD, Midwestern State University
Pia van Benthem, University of California, Davis
JB Sharma, PhD, University of North Georgia
Jason Tullis, PhD, University of Arkansas