

2012 GIS Education Community Advisory Board Update

By David DiBiase, Esri Director of Education, Industry Solutions

Esri's Education Industry Solutions team convened the first meeting of the GIS Education Community Advisory Board last July during the 2012 Education GIS Conference. The Board's charge is to help ensure that the team's strategic priorities respond to the GIS education community needs.

The Advisory Board has made the following four recommendations. Esri activities related to each recommendation are also described.

Board Recommendation: "The Esri Team's near-term emphasis should be to (a) promote broad Community participation in resource development, sharing, and assessment; and (b) organize and disseminate Community resources... In all these efforts ... Esri [should] be mindful of the differing needs of educators and learners in higher education, primary and secondary education, and informal education settings."

Esri Action: In August 2012, we announced that the educational resources our team produces will be freely available for reuse under the Creative Commons Attribution-Non-Commercial-Share-Alike license. Esri UK, our distributor in the United Kingdom, expressed

interest in adopting a similar licensing arrangement. We awarded grants to five educators to create new open-access resources for teaching and learning with ArcGIS Online. We also created resources intended to help educators author resources of their own—for example, Joseph Kerski's recent set of videos that prepare educators to create story maps. [See the playlist.](#)

Board Recommendation: "Improvements to the ArcLessons platform and resource collection, including (a) specifying educational objectives for each resource; (b) identifying how resources align with education standards (state, federal, international); (c) promoting and collaborating on resources focused more on problem solving and less on software use; and (d) helping users design meaningful sequences of learning activities (i.e., curricula) by identifying related resources."

2012 GIS Education Community Advisory Board Members

Amy Ballard, Central New Mexico Community College (NM)
Sarah Bednarz, Texas A&M University (TX)
Margaret Chernosky, Bangor High School (ME)
Sara Damon, Stillwater Junior High School (MN)
Adam Dastrup, Salt Lake Community College (UT)
Eva Dodsworth, University of Waterloo (Canada)
Kenneth Field, Esri (CA)
Iain Greensmith, Esri Canada
Keene Haywood, University of Texas at Austin (TX)
Khusro Kidwai, Pennsylvania State University (PA)
Erika Klose, Winfield Middle School (WV)
Bob Kolvoord, James Madison University (VA)
Mark Lindberg, University of Minnesota (MN)
Anita Palmer, GISetc (TX)
Lori Ann Rubino-Hare, Northern Arizona University (AZ)
Adena Schutzberg, ABS Consulting and Directions Media (MA)
Diana Stuart Sinton, University of Redlands (CA)
Debbie Stevens, William Penn University (IA)

Esri Action: A subset of the Esri Education Team reviewed our approach to educational resource development, and will propose new expectations for ArcLessons and other substantial educational resources. The entire Team will discuss these plans at our upcoming meeting in Redlands.

Board Recommendation: “Design and implement a new web-based platform and interfaces that respond to the distinctive needs of educators and students in primary and secondary education, higher education, and informal education around the world. In addition, the team should address the recognized gap in support for intermediate learners and best practices in advanced topics, such as application development, ArcGIS server, and dealing with big and messy data sets.”

Esri Action: Esri’s Information Systems group is migrating much of Esri’s web presence—including edcommunity.esri.com—to a new content management system. The migration is hoped to take place during the second quarter of 2013. It’s not clear at this point how the new system will enable us to improve the ArcLessons platform in response to advisers’ recommendations. However, our 2013 marketing plan includes an assessment of best practices among comparable platforms leading to a design and implementation plan. Meanwhile, Esri Canada launched a new capability called “Lesson Planner” that enables educators to search for resources by subject areas, geographic focus, grade level, resource type, and other criteria.

Board Recommendation: “The Education Team should foster the community’s development of a research agenda focused on the efficacy of GIS in promoting spatial abilities. Partnership with established research centers such as the Spatial Intelligence and Learning Center (SILC) at Temple University may help.”

Esri Action: In December 2012, Tom Baker and I participated in a specialist group meeting on Spatial Thinking across the College Curriculum hosted by the University of California Santa Barbara, and Temple’s SILC Center. The meeting involved more than 40 scholars from a variety of disciplines. Its purpose was to outline a research agenda for spatial thinking, as well as a transdisciplinary college curriculum. Although the meeting didn’t fulfill those ambitious objectives, it did highlight the need for a research agenda on the special case of geospatial thinking. [Read our reflections](#). Meanwhile, Tom Baker and Joseph Kerski co-authored (with Niem Tu Huynh, Kathrin Viehrig, and Sarah W. Bednarz) a "Call for an Agenda and Center for GIS Education Research" that appeared in Volume 3 of the [Review of International Geographical Education Online](#).

Next: A new focus for the 2013-14 Advisory Board: Jack Dangermond recently invited professor emeritus Michael Goodchild to prepare a series of forward-looking assessments of Esri and its place in our field.

One of Goodchild's areas of interest is GIS curricula in higher education. He recommended that the Esri education team help facilitate an effort to identify important changes in GIS theory, technology and practice since development of the National Center for Geographic Information and Analysis (NCGIA) Core Curriculum and corresponding gaps in contemporary curricula. We plan to hold a series of workshops—one at the Association of American Geographers (AAG) in Los Angeles in April, one at the US Imagery and Geospatial Information Service (UCGIS) Symposium in Washington, DC in May, and another at the 2013 Education GIS Conference—to discuss these changes and gaps, and to recommend actions. The third workshop will comprise the agenda of the 2013 GIS Education Community Advisory Board.