

Education Committee News

David DiBiase, chair
19 March 2006

GI S&T Body of Knowledge in press

The Association of American Geographers (AAG) has agreed to publish the *Geographic Information Science & Technology Body of Knowledge* (GIS&T BoK). Following approval by the UCGIS Board of Directors, the editorial team delivered a complete manuscript to AAG on February 25. The monograph is expected to appear in Summer 2006. (The editorial team includes David DiBiase, Michael DeMers, Ann Johnson, Karen Kemp, Ann Taylor Luck, Brandon Plewe, and Elizabeth Wentz).

The GIS&T BoK is a product of the UCGIS Model Curricula initiative. Founded in 1998, a Model Curricula Task Force chaired by Duane Marble envisioned an innovative, adaptive curriculum that enabling undergraduates to develop the diverse competencies needed to apply and advance GIS&T in government, industry, and academia. Central to the Model Curricula vision was a Body of Knowledge – a comprehensive inventory of the subject matter that pertains uniquely to the GIS&T domain. Following similar initiatives in such fields as Computer Science, Information Science, and Project Management, the Task Force produced a draft GIS&T BoK as part of its 2003 Strawman Report. The manuscript submitted to AAG for publication in February 2006 is an elaboration of the draft BoK to which more than seventy scholars and practitioners, including thirty-one reviewers, contributed. It includes 330 topics defined in terms of 1,660 educational objectives. Future editions are expected to update and improve the 2006 edition.

Although it was conceived originally as a basis for undergraduate curriculum planning, the editorial team expects the GIS&T BoK to be useful to individuals and organizations in many different ways. The GIS&T BoK will help:

- Job seekers, who wish to assess and communicate their experience and skills more clearly and accurately.
- Employers, who need to identify knowledge and skill requirements for their employees, and who need to assess applicants' competencies.
- Geospatial professionals, who wish to better characterize the tasks they need to complete, to more easily locate resources that best meet their needs, to plan continuing professional development strategies.
- Certification bodies, which need to determine the set of knowledge and skills that make someone a novice or expert in particular areas, and to create standard means of evaluating their applicants' competencies.
- Accrediting bodies, which seek to evaluate the core needs of education resources of different types (including undergraduate, graduate, professional, and informal education).
- Education and training providers (including colleges, universities, professional trainers, and software vendors), which need to plan, implement, assess, and revise their programs.
- Students, who wish to benchmark their educational achievements, or to identify programs and courses that provide education in their areas of interest.

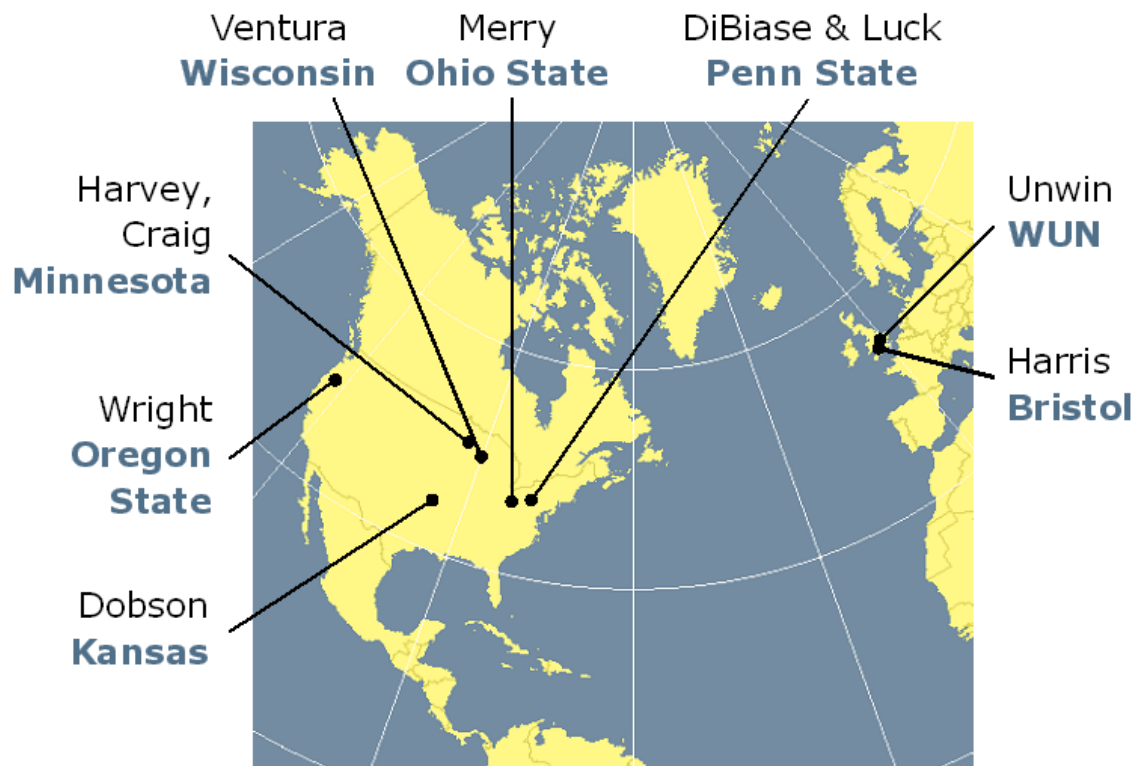
- Authors of professional and academic publications (including magazines, books, and textbooks), who will benefit from a standard foundation and terminology on which to can frame their own ideas.
- GIScience researchers, whose work will extend the current *Body of Knowledge*.
- The geospatial profession, which will gain wider recognition as a distinct and coherent field.

A pre-press edition of the GIS&T BoK is available at

<http://www.ucgis.org/priorities/education/modelcurriculaproject.asp> (A link to "Body of Knowledge 2006" appears at the bottom of that page.) The UCGIS Web site also provides a discussion forum to which you are invited to subscribe and post comments about the GIS&T BoK.

2005 Virtual Seminar in Ethics for GIS Professionals

Students and faculty members at six UCGIS member institutions participated in the latest UCGIS Virtual Seminar in Fall, 2005. The Geographic Information Systems Certification Institute's (GISCI) publication of a Code of Ethics (http://www.gisci.org/code_of_ethics.htm) inspired the seminar topic.



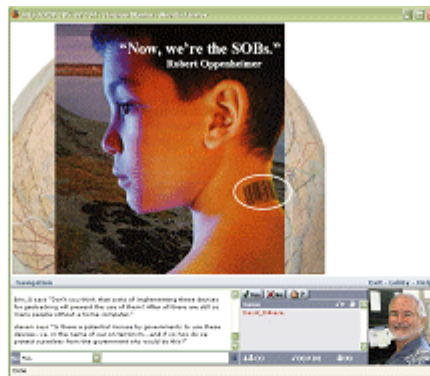
Program of the 2005 Virtual Seminar in Ethics for GIS Professionals

- "The GIS Code of Ethics." William J. Craig, Center for Urban and Regional Affairs, University of Minnesota.
- "Other Organization's Codes of Ethics." Steve Ventura, Department of Soil Science, University of Wisconsin-Madison

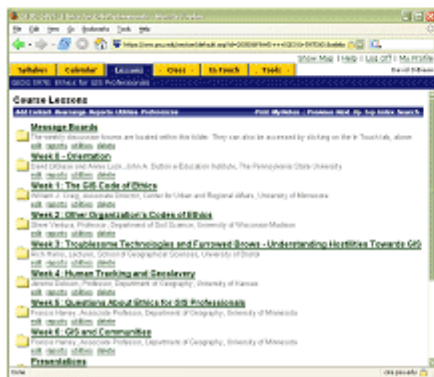
- “Troublesome Technologies and Furrowed Brows - Understanding Hostilities Towards GIS.” Rich Harris, School of Geographical Sciences, University of Bristol
- “Human Tracking and Geoslavery.” Jerome Dobson, Department of Geography, University of Kansas
- “Questions About Ethics for GIS Professionals.” Francis Harvey, Department of Geography, University of Minnesota.
- “GIS and Communities.” Francis Harvey, Department of Geography, University of Minnesota

Speakers offered live presentations (audio and slides) in which students and others participated via a desktop Web conferencing system. In addition to real-time audio and textual chat conversations during the presentations, asynchronous discussions took place in the weeks following each presentation in Penn State’s “ANGEL” learning management system. Presenters also used ANGEL and local Web sites to distribute readings and project assignments. Students and faculty members also met weekly at their institutions for face-to-face discussions.

Live presentations
Web conferencing



Assignments and discussion
ANGEL course management system



Local discussions and projects
Oregon State



The Virtual Seminar was successful in involving more than 50 students from multiple institutions. Speakers’ ability to present from their own offices without incurring the costs and inconveniences of travel encouraged participation. Presenters did need to rehearse presentations to become comfortable with the Web conferencing technology. They also needed to respond promptly to

student comments and questions in the asynchronous discussion fora; unmoderated discussions soon degenerated into blogs. The assistance of an instructional design specialist at the host institution (Penn State) was important, and local face-to-face discussion sessions were crucial. The lead time required to plan the seminar and recruit participants was about one year. Dawn Wright (Oregon State), David DiBiase (Penn State), and Francis Harvey are discussing a possible reprise of the ethics seminar in Fall 2007.