

**UCGIS Research Committee Meeting  
UCGIS Summer Assembly  
Lake Yellowstone Lodge, Yellowstone National Park  
Thursday, June 28, 2007**

**Meeting Called to Order, 3:24 p.m.**

Tim Nyerges, U. of Washington, presiding as chair, nyerges@u.washington.edu  
Marc Armstrong, U. of Iowa, marc-armstrong@uiowa.edu  
Dave Bennett, U. of Iowa, david-bennett@uiowa.edu  
Dan Brown, U. of Michigan, danbrown@umich.edu  
Aileen Buckley, ESRI, abuckley@esri.com  
Jerry Davis, CSU-San Francisco, jerry@sfsu.edu  
Tracy Deliberty, U. of Delaware, tracyd@udel.edu  
Rob Edsall, Arizona State, RobEdsall@asu.edu  
Michael Hodgson, U. of South Carolina, HodgsonM@gwm.sc.edu  
Ann Johnson, ESRI (last part of meeting), ajohnson@esri.com  
Mark Johnson, Open Source Center  
Mei-Po Kwan, Ohio State (last part of meeting), kwan.8@osu.edu  
Arnold Landvoigt, NSA - nalandv@fggm.osis.gov  
Marc Levy, CIESEN, Columbia U., mlevy@ciesin.columbia.edu  
Mary Lou Larson, U. of Wyoming (last part of meeting), mlarson@uwyo.edu  
Scott Mackay, SUNY-Buffalo - dsmackay@buffalo.edu  
Bob McMaster, U. of Minnesota - mcmaster@umn.edu  
Carolyn Merry, Ohio State, merry.1@osu.edu  
Donna Peuquet, Penn State, peuquet@psu.edu  
Brandon Plewe, Brigham Young, brandon\_plewe@byu.edu  
Steve Prager, U. of Wyoming, sdprager@uwyo.edu  
Seth Spielman, grad student, SUNY-Buffalo, ses27@buffalo.edu  
Zaria Tatalovich, USC, tatalovi@usc.edu  
Lynn Usery, USGS - usery@usgs.gov  
John Wilson, USC, jpwilson@college.usc.edu  
Dawn Wright, Oregon State – dawn@dusk.geo.orst.edu  
May Yuan, U. of Oklahoma - myuan@ou.edu

Tim Nyerges passed out hardcopies of the Research Committee Report to the UCGIS Board

**1. Research Committee Minutes from Winter 2007 Meeting**

Bob McMaster moved, Lynn Usery seconded, minutes approved unanimously

**2. Priorities for Research Committee – Straw Poll**

- Brief discussion of priorities for research committee and straw poll from winter meeting as described on p. 4 of the report to the Board
- What of the grand challenges? We had agreed to table until a more appropriate time. Perhaps the next couple of years of activity will allow us to revisit this and by then

Congress/NSF will have appropriate levels, of funding, the Dept. of Labor will have devised a category/description for GIS technicians/analysts, etc.

### **3. Research component of Summer Assembly Program**

- Positive feedback to Tim on the participatory process of generating priority topics for research workshops
- Reminder that the summer assembly program is always put together by Research and Education committee chairs

### **4. UCGIS 2007 Research Award**

- Wording of the call for nominations continues to be an issue (see action item on p. 6 of the report to the Board)

\*\*\*ACTION ITEM\*\*\*

There continues to be a problem with the wording of the call for nominations. The first line of the call has stated a date one year earlier than the year of the award. The announcement from 2004 had the date 2003 in the 1<sup>st</sup> line. This year 2007, the announcement reads, "The UCGIS Research Award is given to the creator(s) of a particularly outstanding research contribution to Geographic Information Science recognized in 2006." As such, two of the nominators understood that the research contribution *was to have been published in 2006*. This is clearly not the intent of the award. In fact, a major part of the rationale for making an award is that evidence has amassed over time. Clearly, that evidence could not be only associated with the year in which the research contribution was published. Therefore, Tim Nyerges suggests that the year referenced in the 1<sup>st</sup> line of the call should be changed to the year of the award.

- 2007 research award (active research in 2006 does NOT mean that the research had to be DONE in 2006)
- Will continue to work on the wording, which was bequeathed to Tim from prior chair and prior chair before that
- "now recognized" is a key term
- The awards to Golledge and Eastman (for IDRISI) represent exceptions - IDRISI an especially difficult case – award is for single activity but IDRISI is a 20-year project – recognizing IDRISI in 2006 for 20-year contribution
- Why not to a scholar for lifetime achievement? This is a research award, not researcher of the year (as clarified by David Mark)
- The Board had approved the wording of the announcement, and recent awards reflected the fact that the call for nominations had larger been understood and adhered to (e.g., Kwan won for the outstanding contribution of 3 papers, Egenhofer for a landmark 1991 paper, Fonseca for 2 heavily-cited papers, etc.)

Suggestion to turn this back to the board to have a careful look at this and reword  
Motion by Usery, seconded by McMaster: That the Research Chair bring the issue of the unclear wording of the call to the UCGIS Board so that they might more closely examine the wording of the announcement in order clarify its intent

Brown – ask chair to draft language for Board to consider rather than asking board to start from scratch

Friendly #1 amendment McMaster – chair should ask Board to appoint a small committee to re-draft the call

Friendly #2 amendment by Wright – wording should explicitly distinguish between “significant contributions to GIScience” (intended) and “lifetime achievement” (unintended)

Motion passed unanimously

### **5. Student Paper Travel Award Competition**

As indicated in Tim’s report to the Board, only 6 travel awards were made available this year due to both space constraints at Yellowstone Lodge venue and UCGIS budget constraints. Eight (rather than 9) applications were received.

A-Xing Zhu and Dawn Wright with Tim Nyerges constituted the review committee.

In the past 18 awards were given out of pool of approximately 25 applicants

This year we asked for full papers *at the outset* rather than extended abstracts.

\$800 travel award – there is no “winner” for best paper/presentation by UCGIS, but there is further potential for CAGIS or TGIS publication – CAGIS and TGIS will each choose one winner and those students will then submit to the journals, be moved through to a fast-track peer review process, and receive an additional \$200 award. The award is not contingent on the paper passing the full review process and ultimately being accepted for publication. Rather this is an incentive to get them engaged in the peer-review publication process.

Buckley: There is no wording in the call for student papers about UCGIS reserving the right to NOT give an award – this should be included in future calls.

Why such a smaller number of applicants this year?

Competition tighter? Announcement not out early enough? Faculty are not announcing on their campuses? Requirement of the full paper at the outset (Yes, but better papers as a result? Remains to be seen), \$800 not enough of an incentive?

No poster session this time – 2 nights of a poster session for future meetings?

Usery: One year there were as many as 40 submissions (Athens meeting?), and 30 the next– we selected 20 for presentation and the rest did posters

Wright: Communication committee discussed the possibility of changing future awardees from grad students to junior faculty (young scholars) in order to better engage our UCGIS junior faculty. Perhaps ESRI or Intergraph could then be enticed to offer awards for the students, so that students could still participate in this way.

Usery: USGS has in their new contract with UCGIS to support students so they may also be able to fund student travel awards in the future. Any new funding sources for students should be welcomed (corporate, govt agency, etc.).

### **6. What’s Next for the UCGIS Research Committee?**

Reports of breakout groups from prior day's session on workshop topics.

I. Rob Edsall for Communication Breakout, which is officially called *Extending Geographic Information (EGI): Getting Applied GIScience Applied*

Workshop on capturing the public imagination (how we and other disciplines do this, even how the arts and humanities does this. What can we learn from the examples of Al Gore and *An Inconvenient Truth*, Google Earth, etc.

Workshop on geo-rhetoric: getting the word out about what we know and what we don't know; boiling complexity down to a simple yet clear message. Can we lend our cartographic skills to this?

Virtual globes and global change: appeal of Google Earth  
Importance of an emotional response (dry areas on maps should indeed be colored BROWN instead of green, use of music and other audio, use of fear and humor, all to affect change.

Virtual Globe workshop extending to theoretical work on how to bring emotion and affect into visualization and representation

Bring in policy makers and decision makers to share anecdotes about their experiences with uncertainty in geographic information (e.g., global effects are more scientifically "certain" than local effects, and yet people relate more to local effects)

The statement: "Why not cartography?" means a cartography that is representing the kinds of issues that were brought up in global change discussions, issues of communicating uncertainty, communicating issues powerfully to the public. How can we use and better communicate geographic information to influence policy (decision makers AND the public) – people do respond to emotional things.

II. Mary Lou for the Spatio-Temporal Modeling Group

How to include geographically organized thinking with spatio-temporal modeling.  
A real change in geography of late due to data having a more temporal focus (long-term, decadal data from observatories, how to model it spatially and temporally).  
Also becoming apparent in many disciplines is the interaction of socio-natural systems – multi-disciplinary studies now melding together (e.g., GAIASP elk paper presented in the prior student session); complex systems working on themselves but influencing other systems – wildlife reacting among themselves and humans reacting among themselves but also influencing each other.

Workshop on these socio-natural natural-natural systems

- representational ontology, a common language of spatio-temporal models (different disciplines studying the same thing)
- identification of unifying models (what can be used to unify our language, our ontology to do space-time modeling)
- using viz to bring specific GIS models to the greater understanding
- process modeling of hazard, risk, resilience – how to work that in to space-time changes
- looking at applied examples

### III. Jerry Davis for the “BCD” group ☺

Workshop topics by priority

1 - GIScience research challenges in health

GIS and public health

health and the environment

health

1 (tie) - GIScience of vulnerability to multiple hazards

GIS support for vulnerability analysis

regional impact assessments and GIS

coastal hazard vulnerability including measure of outcomes and drivers

and homeland security GIScience,

also added at end was PPGIS and coastal zone mgmt

2 – Synoptic mapping of human activity and mobility (including connectivity and spatial dynamics)

synoptic mapping of human activity

transportation and population

transportation and modern communicating technologies

GIScience and population pressure

3 – Facilitating integration and access to environmental data

not recommending this for a workshop at this time

### IV. Dawn for the Cyberinfrastructure group

see PPT at [http://dusk.geo.orst.edu/cyber\\_breakout.ppt](http://dusk.geo.orst.edu/cyber_breakout.ppt)

Brown and Armstrong: look at UCGIS page for information on CI for social sciences workshop sponsored by NSF

### **To do's:**

- Executive summaries for research challenges (from the book chapters) – continue working with authors who provided updates last summer. These should include future research directions that can be posted on the web for federal agencies, students, and others

- Executive Summaries of UCGIS Research Agenda book - need a “light version” of the book with pictures and colors for managers, agency heads who dole out the cash – use template of the short-term priorities for the executive summaries
  - Will go to co-authors of every chapter and have them prepare briefs drawn from their chapter updates
- Where to put energies for research workshop ideas in order to gain and keep momentum, identify funding agencies
- UCGIS application booklet – brand new call to UCGIS member institutions about the applications they are doing -
- Need expertise directory for the agencies so they know what we can offer to them that will prevent them from “missing the boat” on issues such as disaster response & management, etc. – let them know how we can help them with their mission – for students, even for ourselves - compile from research web sites or UCGIS portfolios – Open database that is searchable with keywords – Tim’s UW research staff with advice from Dick Campbell. *Topic not addressed as yet.*

We’ll see where we are between now and the 2008 winter meeting

**New business:**

GIScience fellows – as a leading GIScience organization we might consider nominating prominent scholars as fellows (such as AAAS, AGU, etc.) – Board is dealing with this - need extended time on task in order to make this happen

Meeting adjourned at 4:34 p.m.

Reported by Vice-chair  
Dawn Wright