NGTC 2013 Summer Workshop, July 22-24, 2013, San Diego
Agenda

Hosts: Professor Ming Tsou, SDSU and Professor Ken Yanow, SWC
Location: San Diego State University, Geography SAL lab.
Date: July 22 (Monday), 23 (Tuesday), and 24 (Wednesday), 2013

The National Geospatial Technology Center of Excellence (NGTC – the GeoTech Center), in partnership with Southwestern College (SWC) and San Diego State University (SDSU), will host a 5th annual NGTC Geospatial Technology summer workshop. The workshop will be held on the campus of SDSU from July 22 -24th 2013, running from **9am – 4:30pm on Monday and Tuesday,** and **8am – 3:20pm on Wednesday** only. Workshop participants will design and produce geospatial curriculum that can be used within a classroom setting. **Before the Workshop: Each participants (teachers) should use "Schoology" to join an online virtual group, called "**GIS education, Maps, and Spatial Reasoning**" to share resources, discussion and collaborate.**

Each participant should bring your own laptops during the workshop (optional: windows version preferred, with ArcGIS 10.1 desktop version installed). If the teacher needs to install ArcGIS 10.1, we have the DVD disks to install one year SDSU student version of ArcGIS 10.1 for participants. Please let us know and we can coordinate this before the workshop.

Note: The workshop will utilize two computer labs. The Geography Spatial Analysis Lab (SAL) and the Learning Studio (in Adam Humanity Building room 1120). The SDSU Learning Studio (AH1120) is equipped with 40 iPads and four 50 Inches LCD TVs each with connected Apple TV, and a Digital White Board with smart projector. The desk and chairs are easily reconfigurable for group discussion.

Monday (July 22): 9AM – 4:30PM

Morning: 9am-12pm (SAL- GIS lab)

9:00 **Opening & Introduction (Tsou and Yanow),** Deal with logistics.

9:15 Set expectations:
- **This is a learning community, we succeed by working together**
- **As leaders we have set an agenda based on your feedback in hopes to you build base skills needed to accomplish a variety of personal goals**
- **As participants we will take responsibility to seek application from the group activities and use time both before, during and after to stay on top of good data resources for projects of your particular interest.**

9:20 Introduce participants: describe your project
(**5 min: 2-4 slides or bookmarks per person x 11 = 55 minutes**).

10:15 Data Source Sharing ideas for various projects – have they found other sources
Diabetes, obesity, health atlas data
California Geographic Atlas data
Local Singapore Ethnic Data

Local Demographics
2012 Election Data to the county or district level
Near Coast imagery for the west coast
San Diego County base data

11:00 Skill building: online data on Arc GIS Online for crowd sourcing and story telling
Add table of GPS coordinates
Add table of addresses
Add table of states or countries
Add zipped shapefile from desktop
Publish feature services that are more flexibly used in projects first from a table

12:00-1:30pm   Lunch break (SDSU Faculty Club)
After the lunch, Move to the SDSU Learning Studio - AH1120 (see maps)

Afternoon: 1:30pm – 4:30pm (AH1120 and SAL lab)

1:30   (AH1120) Distribute iPads to participants (collect IDs during checkout)
iPad orientation; app check; internet check; AirPlay and BaiBoard app orientation
GIScience iBook introduction and status report

2:10   Focus Group Session #1 (AH1120): High School teachers (Group 1),
Community College teachers (Group 2). Each group will sit at separate tables
around a monitor that will use AirPlay to display one of the group iPad screens.
Participants may use BaiBoard (collaborative whiteboard iPad app) to facilitate
documentation. Each group has 20 minutes to discuss the following topics:

1. *What is your driving question. Simply stated yet directive enough so students keep this big picture before them in process.*
2. *What minimum data does your project revolve around – specifically what do you want them to see, investigate, discover?*
3. *Are there common misperceptions students often hold about this topic?*
4. *Where else does this phenomena occur?*
5. *How can you get your students to relate to / care about this issue?*
6. *What is the biggest challenge to overcome for students to understand it?*

2:30   Group Report/Discussion (10 minutes from each group)

2:50   Return to SAL lab (Geography Building)

3:00   Publish data 2nd from desktop GIS into participant organizational accounts
3:30   Create simple story map template #1   (Demo Social Media Map)
3:45   Demo MOWGLE dissemination model through arcgis online through dropbox
4:00   Top 10 Cool Things ArcGIS Online (AGOL) can do

4:15   Firm up outline and refine driving questions for your curriculum
         Come up with a warm up / intro for your exercise.
4:30   Finish

Tuesday (July 23): 9AM – 4:30PM

Morning: 9am-12pm (SAL- GIS lab)

9:00   Group Meeting: how is design going?
9:15   Story map templates #2 & #3:
         2. Story maps using images, 3. Story maps using multiple maps: Swipe or tab
9:45   Using a map with an editable feature service to enter data
10:00   Using ArcGIS mobile to add crowd sourced data to features in cloud based maps
10:30   Break
10:45   Creating editable Feature services with drop downs and choices (domains)
12:00   Lunch: Map features on way back using your online map from mobile phone

12:00-1:30pm Lunch **(After the lunch, Move to the Learning Studio - AH1120)**

Afternoon: 1:30pm – 4:30pm (AH1120)

1:30   Play with a rich crowd sourced data entered map. Redlands neighborhood
         project or "**SDSU redproj**" - guided inquiry project.
2:00   Break out discussion groups
         Focus Group Session #2 : Focus on Social Science (Group 1) or STEM
         (Group 2). Each group will sit at separate tables around a monitor that will use
         AirPlay to display one of the group iPad screens. Participants may use BaiBoard
         (collaborative whiteboard iPad app) to facilitate documentation. Each group has
         30 minutes to discuss the following topics:

         1. If students walked away with one thing from your lesson what would it be?
         2. What processing or analysis techniques do you want students to understand?
         3. What ties these processes back to the kernel of the concept you hope taught?
         4. What ties this topic back to a big organizing principal in your field?
         5. What tech challenges will you face implementing this lesson on your campus?

2:30   Report back
2:45   Break

3:00   Lesson plan work
         Check the consistency of your lesson:
         Does your driving purpose match the activities in lesson?
         Work up introductory explanations of key concepts
         How much data work up should students do or just be provided,
         How will you visualize data to see the kernel of the problem?
         Gauge the pace or balance between open and closed questioning
         What analysis techniques help solve their questions?

What will students produce to show what they know
Are there subtle ways to direct them to a creative solution?
4:20   Wrap up day by sharing progress with other affinity topic
4:30   Finish

Wednesday (July 24): 8AM – 3:20PM

Morning: 8am-12pm (SAL- GIS lab – whole day)

8:00   Skill Building exercises: Image analysis, spatial calculations, or metadata creation.

9:00   Walk through your process to check the workflow and screen shot the experience to place these shots within your growing outline.

10:15   Break (10 minutes)

10:25   Fill in details to give audience appropriate guidance between steps. Make sure at least in outline form there aren't too many actions needed to accomplish in any given step.

11:15   Leveraging your lessons in the SDSU iBook project

Lunch (11:30am-12:30pm) at SDSU Faculty Club
Afternoon: 12:30pm – 3:20pm (SAL - GIS lab)

12:30   Adding any last touch analysis. Editing the document to clarify any unintended confusion, finalize your presentation for the individual project.

1:30   Break (10 minutes)

1:40   **Report back on your lesson status**, any data needs, processes clarified where you are at for your project and where you want to go with it
        (3 or 4 slide PPT or live demo for each teacher, 5 or less minutes + 2 minutes Q&A).

2:40   Debrief, next steps, building your networks, finding good resources in the tools to get the job you are interested done. (Instructor departure at 3pm).

3:00   Discussion Feedback and Closing (Tsou and Yanow).

3:20   Finished.

Important!   After the Workshop, each participant should submit their final curriculum packages, syllabus, and associated databases into the Schoology Web, published as sharable resources for the whole group. The due date of the submission is **August 20th, 2013**.