

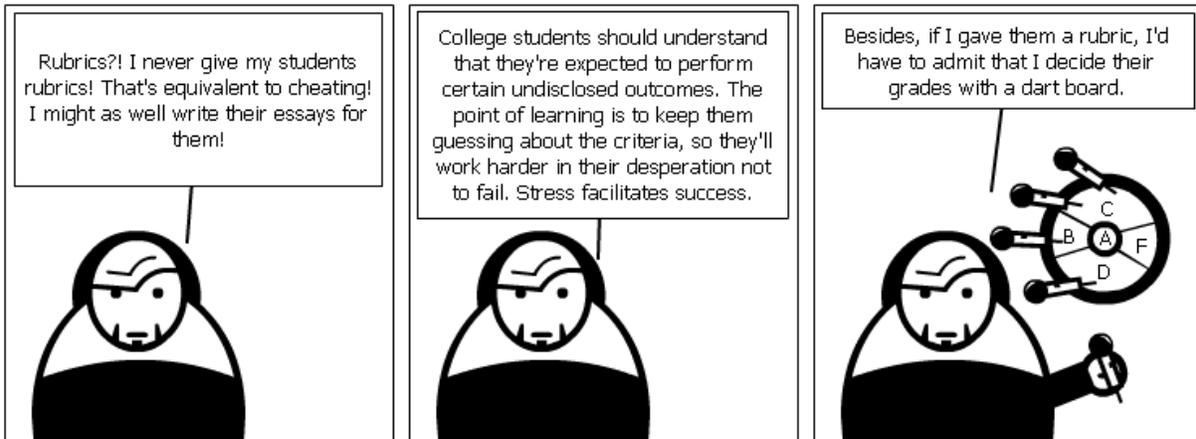
GARP 0317: Cookbook 26 September 2012

Data and Maps (Part 2)

Overview

1. Cool Sites!
2. Rubrics
3. Yammer!
4. Digitizing!

Rubrics & the Secret to Grading



1) Cool Sites!

MapBox

<http://mapbox.com/>



MapBox is a platform for designing and publishing fast and beautiful maps. It combines MapBox Streets, a complete customizable world base map, an open source map design studio TileMill, and makes it possible to integrate maps into applications and websites, and support all of these tools on top of scalable, high-performance hosting. It also offers an open API.

TileMill

<http://mapbox.com/tilemill/>

<http://mapbox.com/tilemill/docs/crashcourse/introduction/>

OpenStreetMap

<http://www.openstreetmap.org/>



OpenStreetMap is a free worldwide map, created by people like us! It is available as a base layer in ArcGIS Online and for free download at <http://planet.openstreetmap.org/>.

There is even an editor for ArcGIS: <http://blogs.esri.com/esri/arcgis/2012/03/08/hello-map-getting-started-with-the-arcgis-editor-for-openstreetmap/>

2) Rubrics

You are currently working on two projects: *You in Space!* and the *GIS Day 2012 ArcGIS Online Tutorial*.

See the cookbook from 19 September 2012:

http://www.westfield.ma.edu/uploads/cbraun/garp0317_cookbook09192012.pdf

Due Date for both: 12 October 2012

Have a look at the two grading rubrics and ask yourself:

1. Does this make sense to me?
2. Do I understand what to do?
3. Is there anything that should be removed from the assessment?
4. Is there anything that should be added to the assessment?

Please let me know if there is anything unclear, missing, or otherwise needs improvement!

3) Yammer!

= One of the 1,000s of online communication tools.



More Information

- <http://www.quertime.com/article/arn-2012-03-12-1-top-37-best-online-project-management-and-collaboration-software-for-individuals-and-teams/>
- <http://www.smallbiztechnology.com/archive/2012/08/3-simple-and-powerful-online-collaboration-tools-for-your-business.html/>
- <http://www.socialbrite.org/2011/06/02/10-top-collaboration-tools-for-your-organization/>

If not already:

1. Sign-up for Yammer with your Westfield State Email account.
2. Join the GARP group.
3. Say hello!
4. Download the file.
5. Take the poll.
6. Optional: get the apps for your favorite gizmo.

4) Digitizing!

Digitizing: = Creating new and original geospatial data.

Or: = Making reality (= the Earth) digital.

On-Screen Digitizing of Spatial Features

Here you digitize points/lines/polygons from existing geospatial data sets, such as aerial photographs, satellite images, topographic maps, digital elevation models, Google Earth, etc.

Points	Building locations, mountain summits, etc.
Lines	Streams, contour lines, roads, etc.
Polygons	Building foot prints, wetlands, etc.

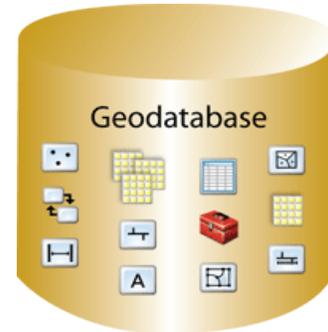
In-situ Digitizing of New Features

Here you go outside and digitize points/lines/polygons using a GPS receiver. The GPS receiver gives you latitude, longitude, and elevation. You make notes of feature types, feature attributes, etc. and add those attributes later in ArcGIS.

Points	Sampling locations along a stream, locations of temperature loggers, etc.
Lines	Hiking trails, edges of glaciers, mice trails, etc.
Polygons	Wetland boundaries, neighborhoods, etc.

4.1) The Basic Digitizing Process

1. Create a new empty feature class or shapefile.
This serves as the 'shell' into which you digitize your spatial features.
Choose the appropriate type!
2. Open this empty feature class or shapefile in ArcMap.
3. Add the fields you need to the attribute table.
Define the appropriate field types!
4. Digitize your spatial features = the spatial data!
Using an appropriate base layer.
5. Enter the attribute information = the attribute data!
Using your field notes.



→ Now you have new, original geospatial data!

Clicking-around has no intelligence! The intelligence comes from adding and using attribute data!
Otherwise all you have is point, line, or polygon with no meaning!

Detailed Tutorial at:

http://www.westfield.ma.edu/uploads/cbraun/garp0244_cookbook04052012.pdf

A few rules!

- Simple short filenames.
- All lower-case, no blanks!

4.2) A Hands-On Example!

1. Start ArcMap, create a new map.
2. Add Basemap from ArcGIS Online, zoom-into Bates Hall as much as possible.
3. Save your map on your USB flash drive using relative path names.

Question: What's the coordinate system of this map?
 How do you figure that out?

Your answer: _____

4. If necessary: create a new file geodatabase in your \data folder.
5. Create a new point feature class inside your file geodatabase.
Use the coordinate system determined above.
6. Add fields to the attribute table.
code
type
comment
Make sure you use the appropriate field types!
7. Digitize a few points based on our mapping and enter the respective attribute data.
8. Export your feature class to a shapefile, zip, and upload to ArcGIS Online.
9. Edit the pop-up boxes, change the symbols, map as choropleth, etc.
10. Enable editing and add a few more points.
11. Share your map and save!

➔ *That it!*

Now you can create new original data and map it for the world to see in ArcGIS Online – cool!

4.3) One Flaw Here!

Map features as a function of space – e.g. everybody is responsible for 1 building?
Map features as a function of type or function?

What's the better approach?