INFOECO COOKBOOK | "DO" EXERCISE

DATA REPRESENTATION

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OVERVIEW

This exercise asks you to create a geospatial dataset, examine that dataset, then re-present that dataset in a different mapping interface. For the attached exercise, you will need a Google account and access to the Google Chrome internet browser, and the ability to download files and applications to the computer you are using. The exercise will take between 20 and 30 minutes to complete.

DIRECTIONS

PART 1: CREATE A GEOSPATIAL DATASET – IN OTHER WORDS, MAKE A MAP!

1) Navigate to My Maps in Google Maps
   a) http://maps.google.com -> hamburger menu -> "Your Places" -> "Maps" -> "Open in My Maps"
   b) OR just go to https://www.google.com/maps/d/

2) Select "Create a New Map" and title it as you wish

3) Tour the features
   a) Layers
   b) Markers (place points)
   c) Lines/Polygons (shapes)
   d) Measuring distances
   e) Adding photos to your maps
   f) Changing the base map

4) Zoom in on a location of interest to you

5) Add three points of interest using the Markers tool, adding a photo to at least one and some additional information in the description fields

6) On the same layer, draw a line that represents a possible commute

7) On a new layer, draw a polygon around the general location of a building

PART 2: EXPORT AND EXAMINE THE DATA FILE

1. Export your information
   a. Click on the Triple-Dot-Colon menu > "Export to KML/KMZ" > Select "Entire Map" > Check the box for "Export as KML" > "Download"

      b.   Make sure to save it somewhere easily accessible

      c.   You can also download as KMZ, which is the compressed version to see what you can/can't do with it. You can also unzip it to get the KML file using a zip utility.

      d.   Open the KML file in a text editor (right-click to see options: Mac = TextEdit, Windows= Notepad)

2. Examine the file
   a. What do you notice? Can you read it?
   b. Look through and see how it encodes not only the geospatial information (because, of course), but also information about "icons" and "balloons"
   c. Find the use of "tesselate." What does it mean?
   d. Find the added photo(s). Where do they exist now?

PART 3: RE-PRESENT THE DATA IN A DIFFERENT INTERFACE

1. Using Google Chrome, navigate to Google Earth [https://earth.google.com/] (We'll be using the web version here, which is only available on Chrome. If you do not have Chrome or would rather work from the desktop client, feel free to download Google Earth Pro. The directions might be slightly different)

2. Tour the features
   a. Voyager
   b. I'm feeling lucky
   c. Projects
   d. Map style
   e. Measure distance and area

3. Select "Project" from the left-hand menu and upload the KML file you already created

4. Explore the differences
   a. What does your data look like now?
   b. Can you do different things with it?

5. Create a new placemark and a new polygon, playing with all of the available parameters available in the editing pane

6. Export this new file and examine it – What changed?

7. Upload it back in Google Maps – Does anything look different? Can you manipulate any of it differently?