Title: Geographic Information

Critical Resources: An internet-enabled computer with MS Word, access to myCourses, access to QGIS (available free to download from http://qgis.org), and Assignment_6_data_sets.zip file.

Learning Objectives:

The learning objectives of this assignment are:

- Understand how geographic information can be used for space/time analysis
- Understand how to work with an open source GIS tool and GIS data sets

Background:

Earthquakes are a persistent global hazard. In this assignment, you will import earthquake data into QGIS and conduct a space/time analysis of earthquake activity around the world over the past 30 days.

Instructions:

1. Download a CSV of the Past 30 Days, M2.5+ Earthquakes
https://earthquake.usgs.gov/earthquakes/feed/v1.0/csv.php

2. Import your CSV into QGIS as a layer.

3. Based upon the distribution of the earthquake magnitudes, categorize the magnitudes into at least 3 separate categories, where the symbology of each category is unique and reflective of the meaning of the earthquake's magnitude category.
https://www.qgistutorials.com/en/docs/3/basic_vector_styling.html

4. Install the TimeManager plugin.

5. Add a base map to provide context for your data. Your base map should have city/country names visible in it.

6. Add one or more of the Assignment 6 datasets (in Assignment_6_data_sets.zip) to support your analysis. For example, to show world population by country, potential earthquake impacts on roads, and so on.

7. Make a video showing earthquake activity over the past 30 days using the TimeManager to generate individual frames and the Python script that you used in the Week 7 Exercise to combine the images into a video. Feel free to make use of any of the tutorials at https://www.qgistutorials.com/en/index.html to assist in your analysis.

Deliverables

1. The video you made in Step 7 showing your earthquake analysis.

2. A 250-300 word description of what you found interesting about your analysis of the earthquakes in space and time.

Extra credit

- (10 points) Add an audio track (or closed captioning) of the description you wrote for your video. If you do this, then only submit the video and not the description.