CSOC20010

Introduction to Computational Social Science II

UCD School of Sociology

Spring, 2021-2022

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Week 8 Assignment: QGIS

The final goal of this week's assignment is to produce a map that shows a certain variable for the countries, coded in colour. Similar to what we did in the class!

1. Download and install QGIS from here: https://qgis.org/en/site/forusers/download.html

2. Download the attached file and unzip it.

3. Import the newsweek_data.shp file from the unzipped directory as a vector layer to QGIS.

4. Right-click on the imported layer in the "Layers" menu and Open Attribute Table, which contains all the data in the file.

5. Have a look and decide in which variables you are interested. Examples: Population (POP_K), literacy rate (LITRATE), ... and close the table.

6. Double click on the layer and then select Symbology. Here you can change the colour of the countries based on the variable you chose. Select "Graduated" from the dropdown menu at the top and the variable of your interest in the "Value" menu; then select the appropriate "Mode" from the menu in the lower part of the window and press "classify" and then "apply". If you select Logarithmic scale as Mode, you need to filter out "0" values by selecting Discard from the "Handling of 0 ..." menu.

7. Make sure to select a Mode that represents the data properly and makes your map insightful.

8. Follow the steps that I showed you in the class to export your map as a PNG file (you should use the Layout Manager, here is a good tutorial: https://docs.qgis.org/3.4/en/docs/training_manual/map_composer/map_composer.html).

9. Don't forget to add the legends, a title, and a short description to the map PNG file.

10. **Bonus**: you can add any data to the Attribute Table (for example number of Covid19 cases for each country that I gave you a few weeks ago) and make a map of it, here you can see how to add new "fields" to existing vector layers https://docs.qgis.org/2.18/en/docs/user_manual/working_with_vector/attribute_table.html