ql

adam okulicz-kozaryn

adam.okulicz.kozaryn@gmail.com

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VisionZ; probably most useful!; watch them

- the whole thing https://www.youtube.com/watch?v=KjvFil3o4y8&list=PLNCPalajQvg7wQvzf3fM8fOZ5lMKl86Q4
- 01 - open and view data

  https://www.youtube.com/watch?v=KjvFil3o4y8&list=PLNCPalajQvg7wQvzf3fM8fOZ5lMKl86Q4&index=1
- 04 - Working with attributes

  https://www.youtube.com/watch?v=G6UeiGg2Cp8&list=PLNCPalajQvg7wQvzf3fM8fOZ5lMKl86Q4&index=4
- 07 - Basic vector styling

  https://www.youtube.com/watch?v=b-0MQ7dnVJk&index=7&list=PLNCPalajQvg7wQvzf3fM8fOZ5lMKl86Q4
- 03 - print composer

  https://www.youtube.com/watch?v=YnqbC1hkfnk&list=PLNCPalajQvg7wQvzf3fM8fOZ5lMKl86Q4&index=3

other references

- http://www.youtube.com/results?search_query=qgis

  not sure, any of these useful in particular? email listserv

- pretty good and comprehensive

  http://www.qgistutorials.com/en/

- http://www.qgistutorials.com/en/docs/teach_qgis.html

- Good howto, references
  - http://hub.qgis.org/projects/quantum-gis/wiki/
  - http://hub.qgis.org/projects/quantum-gis/wiki/How_do_I_do_that_in_QGIS

- other (rather lengthy and dry):
  - https://docs.qgis.org/2.8/en/docs/gentle_gis_introduction/
  - https://docs.qgis.org/2.14/en/docs/training_manual/

a tip of the week...

- get yourself a hi-res screen (if you don't have one yet)
- it immensely helps working with any research, especially gis
- it's just 150$ or so
- 2560 x 1080 or larger would do, say `https://www.newegg.com/Product/Product.aspx?Item=N82E16824025340`
- what maters is # of pixels not so much size of the screen!

gui

- pretty standard gui
- first thing is to add data...
- say US states; where do i get it?
- google "US states shapefile" and we get
- `https://www.census.gov/geo/maps-data/data/tiger-cart-boundary.html`
- click 'State,' and get
- `https://www.census.gov/geo/maps-data/data/cbf/cbf_state.html`
- and download say 'cb_2016_us_state_20m.zip'
  - reliable; always think how reliable is the source
- in general, trust the government, "major companies", universities, etc

adding data

- click first icon on the left toolbar "line with nodes" for vector data
- "checkboard" is for raster/pictures (seldom used)
- and we got US in the middle: the map
  - grab it and move around with "hand" pointer
- and a layer on the left–you can uncheck it
  - and right click to pop up more information

zooming, identifying

- can zoom in and out
  - either click the map with appropriate tool
  - better yet, draw a rectangle to achieve appropriate zoom
- once zoomed in, let's identify features
  - select tool "arrow with 'i"' -'i' for info/identify
  - click on some polygon, say TX and it'll pop up information
- a useful thing is to right click on layer and do "zoom to layer"

underlying data

- there is always a table (database) underlying a map
- right-click on the layer, and open "open attribute table"
- now, let's make a selection
  - and you can highlight some rows in the table
  - or do it in the map: "arrow with rectangle"
    - either click or draw a rectangle
  - to deselect use "arrow with 'no' sign"

loading data

- and let's get some more data and load it into qgis

  `https://docs.google.com/uc?id=`

  `1xJDhcRCkgv7k4tNCa72Oog5bohV6dTB2&export=download`

play around

- add more layers, move them up and down
- turn on the layers and off (check tick)
- right click and see the data (table)
- remember i was saying there is always data under the map?

your first thematic map

- thematic maps are the key thing in this class: thematic.pdf
- nj_counties-Properties-Style and from drop-down: "Graduated"
- Column: "POP2010"
- Color ramp: can just leave Blues
- and hit "Classify" button
- many ways to do the classification: more soon
  - if you're curious–just poke around with classifications
  - easy to experiment and figure things out there
- and hit "OK" to see the map–viola!

print a map: Print Composer

- Project-New Print Composer
- NJ is tall: on the right "Composition" and do "portrait"
- left: blank icon "Add New Map" and draw a rectangle
- left: icon with arrows "Move Item Content" to adjust view
- right: "Item properties" change scale to adjust zoom
- left: legend button "Add new legend"
  - right: **uncheck** auto-update and beautify it:
  - drop items with minus sign; edit by double clicking it
- top: on the left: Composer-Export as Image
  - probably jpg is fine, just increase resolution to say 600dpi
  - `http://www.qgistutorials.com/en/docs/making_a_map.html` and
  - `http://docs.qgis.org/2.0/en/docs/user_manual/print_composer/print_composer.html`