

# online mapping with google maps

adam okulicz-kozaryn

`adam.okulicz.kozaryn@gmail.com`

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## outline

google.com/mymaps (almost like qgis!)

[\*] mapbox

more about mmqgis

if time: final\_project.pdf

## why online maps?

- ex “NJ Firearm Force Incidents”:  
[https://www.google.com/maps/d/viewer?mid=1DZWn5q\\_9UnPZI1m00NcF20AmphSgC5pL](https://www.google.com/maps/d/viewer?mid=1DZWn5q_9UnPZI1m00NcF20AmphSgC5pL)
- very easy to share
- higher quality than printout or even pdf
- zoom in/out, pop up features
- (like identify feature tool in qgis but less clunky)
- especially good for low-level (hi-res) mapping
- have a super neat basemap with all the details
- use for collaboration-just enable editing for anyone!  
(can enable editing for a select group of folks)

## basic things in regular google maps

- (may not work sometimes: guess browser or OS)
- `google.com/maps`
- search for 'rutgers camden'
- but can do polygons, too: '08102', 'university city, pa', etc
- can do lat/long: '38.8977 N, 77.0366 W' or '38.8977 , -77.0366'
- `https://s3.us-east-2.amazonaws.com/journeynorth.org/images/graphics/mclass/Lat_Long.gif`
- can get lat and long by (long) left or right clicking on the map
- we'll be loading kml, which is just a bunch of coordinates

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- create new map
- interface almost like qgis
- rudimentary tools at the top
- layers on the left
- even data table is accessible
- not only display imported kml; can create kml with:
  - markers, driving, cycling, etc (like goog maps)
  - also can draw any lines, polygons
  - and can export as kml

## [google.com/mymaps](https://google.com/mymaps) will generate your own data

- zoom in on Camden NJ—can just search it search box
- select placemark from the top and put onto R and mark 'R'
- and put placemark on patco station and call 'patco'
- from line segment select 'Add walking route'
- and make a line to patco station (double click to end it), name it 'path' (and pop up distance)
- from left menu let's 'Add layer' (cant have shapes and routes on one)
- from line segment menu select 'Add line or shape'
- put a polygon on parking lot (just draw line around it)
- call it 'park'; click it to pop up acres

# kml

- just another vector format like shp
- but just one file as opposed to shp
- can use qgis to turn shp into kml



## loading kml from goog maps to qgis

- click main menu (three vertical lines at the top-left):
  - 'Export to KML/KMZ' and check KML!! (qgis may dislike KMZ)
- load it to qgis as any vector layer
  - make sure you click 'Select All' !
- and viola! we have it in qgis
  - add openlayers basemap to put it in context

## timeline

- as you imagine, google records your location
- the good thing is that you can download it :)
- `google.com/maps`
- click menu (3 horizontal lines on the left)
- click 'Your timeline'
- can browse it by date
- at the bottom right click cog icon

## how about just displaying kml from qgis?

- can do that, too; though little less handy than in qgis
- can just export kml from qgis
- in fact can put the thematic map straight from qgis onto google maps!
- but first, simplify polygons

## simplify polygons

- make it smaller so that it loads faster
- load our fav nj counties
- <https://docs.google.com/uc?id=1xJDhcRCkgv7k4tNCa720og5bohV6dTB2&export=download>
- Vector-Geometry Tools-Simplify
- and simplify polygons with tolerance of 1,000
- if you do something like 25k, you'll mutate nj too much!)
- really, as a rule, simplify all data before online display

## make thematic map and export to kml

- say pop2010 3 classes (tertiles)
- can also make it transparent if you want to
- MMQGIS-Import/Export-Google Maps KML
- (just keep the defaults and play with them at home)

## uploading to google maps

- <http://google.com/mymaps>
- from left menu: 'Add layer' and then Import

## make it pretty!

- bottom of left menu: adjust basemap
- i like similar non-contrasting colors
- either lightish or darkish
- can also play with “Individual styles”

## ideas

- these ramps colors are quite lame
- may actually want to click and edit and pick some opposing colors
- like green and red
- especially if there are few classes, like 3
- then do say red, yellow, green



## other things

- Under 'Individual styles' can also 'Set labels':  
'COUNTY\_LAB'
- finally, at top-left click 'share,' make it public and send me a link

## and can geocode!

- load philadelphia apartments as excel
- `https://github.com/theaok/data/raw/main/apartments-for-rent.xls`
- pick all geo fields to geocode
  - and fast—have nice goog geocoding without API key
  - as anything else can export as kml, and import into qgis

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## mapbox and open map

- mapbox and open map seems like a good alternative to google
- <https://www.mapbox.com/about/maps/>

looks promising! give it a try

- [https://blog.mapbox.com/  
introducing-data-explorer-a-new-way-to-quickly](https://blog.mapbox.com/introducing-data-explorer-a-new-way-to-quickly)

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# animation

- walmart store animation

<https://www.youtube.com/watch?v=adm3RB4ieXU>

- <http://michaelminn.com/linux/mmqgis/>

- <https://medium.com/@tjukanov/>

[geogiffery-in-a-nutshell-introduction-to-qgis-time-manag](#)

- there is much more
- just explore menu

## combining layers

- there was a question about how to combine layers
- mmqgis-combine-merge layers
- just make sure all are same type (polygon, line, point)
- more info on combining layers: <http://gis.stackexchange.com/questions/25061/how-to-merge-multiple-layers-to-one-layer-using-qgis>
- <http://www.statsilk.com/maps/merge-multiple-map-layers-single-shapefile-using-quantum-gis>
- <http://www.igismap.com/merge-two-shapefile-qgis/>



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