

# online mapping with google maps

adam okulicz-kozaryn

`adam.okulicz.kozaryn@gmail.com`

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## basic things in regular google maps

- ◇ `https://maps.google.com/maps`
- ◇ `'rutgers camden'`
- ◇ but can do polygons, too: `'08102'`, `'university city, pa'`, etc
- ◇ can do lat/long: `http://www.learner.org/jnorth/images/graphics/mclass/Lat_Long.gif`
  - `'38.8977 N, 77.0366 W'` or `'38.8977 , -77.0366'`
- ◇ we'll be loading kml, which is just a bunch of coordinates
- ◇
- ◇ btw, if you have lat/lon for points: can map it in qgis
  - import delimited

`http://www.qgistutorials.com/en/docs/importing\_spreadsheets\_csv.html`

## timeline: let's do sth creepy!

- ◇ as you imagine, google records your location
  - the good thing is that they share it with you :)
- ◇ `google.com/maps`
  - click burger menu (3 horizontal lines on the left)
  - click 'Your timeline'
  - can browse it by date, etc
  - at the bottom right click cog icon and
  - 'Download a copy of all your data' [kml or json]

## generate map (your own gis data!) in google maps

◇ [google.com/mymaps](https://google.com/mymaps)

- ◇ this is actually made for generating your own gis 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'
- ◇ and connect them: 'Draw a line' tool: 'Add walking route'
- ◇ 'Add layer' from left menu (need new layer for poly)
  - 'Draw a line': 'Add line or shape'
  - and put a polygon on parking lot (just draw line around it)
  - (pop up acres; also can click walking route for distance!)
  - make sure each layer has a different meaningful name
- ◇ create data!: have your students mark stuff, eg drug dealing
- ◇ now can save it as kml

## kml

- ◇ another vector format
  - just one file as opposed to shapefiles
- ◇ click main menu (three vertical dots at the top-left):
  - 'Export to KML/KMZ' and it will save it as KMZ (KML zipped)
- ◇ load this KMZ 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

## the other way round: from qgis to goog

- ◇ our fav nj counties
- ◇ first make it smaller so it loads faster
- ◇ Vector-Geometry Tools-Simplify Geometries: tolerance: 1k
  - (as a rule simplify all data before online display)
  - map POPDEN2010, 3 quantiles RdYlGr
  - important: make transparency **from under Symbol**, like 50%
- ◇ MMQGIS-Import/Export-Google Maps KML Export
  - Description Separator: Field Names

**upload to** [google.com/mymaps](https://google.com/mymaps)

- ◇ at top-left click 'Import' or 'Add Layer' and 'Import'
  - note that can adjust Base map at the bottom
  - whiteish is better—easier to see symbology :)
- ◇ “Share” at top left:
  - use for collaboration—eg enable editing for those with link
- ◇ top menu: “Embed on your website”
  - then can add other info, like jpg of legend from qgis!

## why online maps?

- great tool for collaborative mapping!
- ◇ can even have your own business/service/app/etc
- just display sth interesting on the top of a google map
- ◇ eg <http://www.trulia.com>
- ◇ sounds impossible? look what Straso did:  
<http://cure-cnccs.camden.rutgers.edu/>
- ◇ another local example: <http://camden-data.org/#body>



## student presentations

- ◇ Kristin/Michelle, Shauna, Richard
- ◇ Q&A