LAB: INTERNET-BASED GEOSPATIAL INFORMATION VISUALIZATION TOOLS, MARCH 2017

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Fundamental GIS conceptes covered:
  - Concept of layer
  - Geographical data representation: vector, raster (image)
  - Layers & Geometry types (points, lines & polygons)
  - Shapefiles: a de facto GIS layer standard
  - Coordinate Reference System (CRS) & map projection
  - Notion of scale
  - Different maps for different purposes: thematic mapping, Digital Elevation Models, topographic, ...
  - Intro. to semiology of graphics & thematic mapping
  - Online web mapping/geospatial visualization ecosystem overview
  - Notions of spatial query & spatial analysis
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Day 1

INTRODUCTION

- Lab. objectives & setup [lectures & practical classes]
- Course resources and materials

QGIS INTRO.

- Install & set up
- Handling QGIS plugins
- Handling GIS layers (opening, overlaying, selecting features, basic styling and saving as project)
- Handling Coordinate Reference Systems (CRS) & map projections
- Importing a georeferenced text file & overlaying it over Google Maps

THEMATIC MAPPING INTRO. WITH SAFECAST DATA

- Thematic mapping of punctual data

Day 2

- Recap. & finalizing day 1

THEMATIC MAPPING INTRO. WITH SAFECAST DATA (CONTINUED)

- Addressing overplotting with spatial aggregation

ONLINE MAPPING WITH CARTO

- CARTO introduction & Safecast data upload
- Basic thematic mapping

Day 3

- Recap. & finalizing day 2
- PRACTICING WITH YOUR OWN DATA

[OPTIONAL]

- Adding data to a shapefile in QGIS and in CARTO
- Illustration of QGIS CARTO workflow
- Custom map background with Mapbox & OpenStreetMap: a briefing & intro
- Data wrangling & cleaning: a briefing & intro
- …