

# MAPPABLE CHEAT-SHEET

An (incomplete) checklist for making geodata visualizations in (data-driven) journalism.

## ALWAYS ASK YOURSELF FIRST:

**Is a map really the best way to visualize the data set?**

## DATA HANDLING

- ☐ Got all geographic elements right? (especially borders & place names)
- ☐ Check the correct position of geocoded and self drawn map elements (thus preventing mistakes from misused spatial reference systems)
- ☐ Have all outliers and duplicates been eliminated? Correctly dealt with incomplete data entries?
- ☐ Have data entries that are not necessary for the final visualization been removed?
- ☐ Have the values been normalized (e.g. by population data)?

## CARTOGRAPHIC REPRESENTATION

- ☐ Has a suitable spatial reference system been chosen? (consider rotation, distortion, equal area)
- ☐ Is the level of given context information (reference points, place names, borders) well balanced?
- ☐ Is it really necessary to use a basemap or can users already orient themselves by the mapped data points?
- ☐ Is there too much useless white space on the map? If yes, how about several smaller maps?

## VISUAL IMPLEMENTATION

- ☐ Do readers instantly understand the key message of the visualization?
- ☐ Is the visualization readable for someone who suffers from color blindness?
- ☐ Choose meaningful categorial boundaries that lead to well perceivable categories
- ☐ If mapping locations: pick symbols than are more meaningful than pins (or use dots instead)
- ☐ Color scales
  - ☐ Rainbow colors and red-green color schemes usually should not be the first choice. <http://colorbrewer2.org/> is your friend!
  - ☐ Be careful with manipulating color schemes when working with continuous data. You might damage the logic of equidistant colors.
  - ☐ When working with qualitative color schemes: do all colors appear equally

important or are there unintended highlights?

- ❑ Be aware of biased colors (e.g. red and green) and what meaning is usually assigned to them
- ❑ Choose a suitable middle point when working with diverging color schemes

## **LEGEND AND ATTRIBUTION**

- ❑ Include copyright and attribution for all external data sources (incl. geodata and open data!)
- ❑ Does the reader need a legend to understand the visualization? If yes, is your legend complete?
- ❑ If you use transparent map elements, pay attention on displaying them correctly in the map legend.
- ❑ If desired: how about publishing your raw data?

## **INTERACTIVITY**

- ❑ Is it easily understandable how interactive elements work?
- ❑ Would a static map be equally suitable? Does interactivity really lead to a surplus that's worth the external dependencies that come along with interactivity?
- ❑ Is your map limited to meaningful extends and zoom levels?
- ❑ How does your visualization work with your content management systems?
- ❑ Is everything working fine in most common browsers and on mobile devices (at least in iOS + Android)?
- ❑ If desired: how about embedding options?