

## Aquanims: implement animated transitions for statistical data graphics

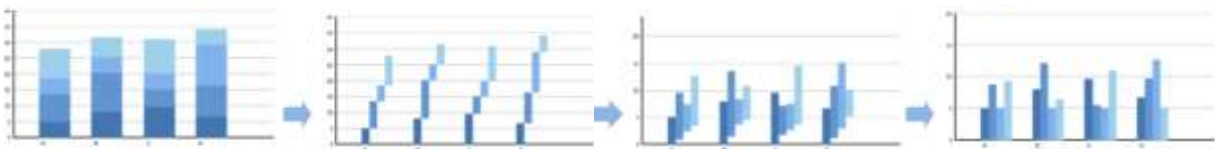
### Project Description:

Statistical data graphics like pie charts, bar charts, area charts or treemaps are used to summarize and analyze data. Analysts frequently need to change parameters of these visualizations passing from one graph to another representing the same data but in a different way: for instance changing the number of bins of histograms, or reordering bars in a bar chart, or passing from a pie chart to a bar chart...

These changes must occur in a way which best preserves the perception of the data

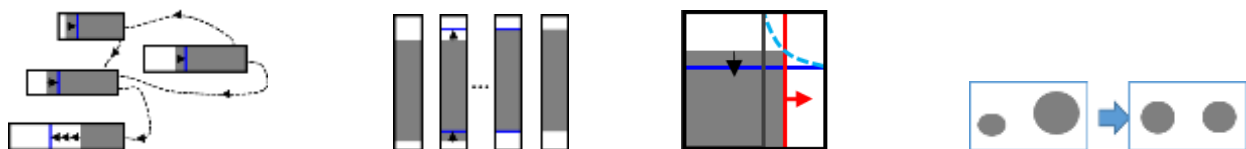
Animated transitions are made just for this. They generate a sequence of transitional graphics which make easy to track the data while the graph changes.

See for instance the video: <https://vimeo.com/19278444>



Jeffrey Heer, George Robertson. **Animated Transitions in Statistical Data Graphics**. IEEE Trans. Visualization & Comp. Graphics (Proc. InfoVis), 13(6), 1240–1247, 2007

We designed a new metaphor for animated transitions which is based on liquids. The idea is to consider that data are represented by liquids that flow within/between containers while preserving their areas:



### Duties/Activities:

Implement a toolbox using JavaScript and D3.js to allow “liquid” animated transition between different types of area charts.

**Required Skills:** javascript, D3.js, web

**Preferred Intern Academic Level:** BSc

**Learning Opportunities:** You will learn about d3.js data visualization and animated transitions

**Expected Team Size:** 2

**Mentors :** Michael Aupetit

email: [maupetit@hbku.edu.ga](mailto:maupetit@hbku.edu.ga)