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VISUALISATION WITH RAW GRAPHS
WHAT IS RAW GRAPHS?

RAW Graphs is an open source data visualization framework built with the goal of making the visual representation of complex data easy for everyone.

rawgraphs.io
RAW Graphs

The missing link between spreadsheets and data visualization.

USE IT NOW!   FORK IT ON GITHUB
WHAT IS RAW GRAPHS?

Data curation
- Excel
- Google Spreadsheets
- OpenRefine
- DataWrangler

Data visualisation
- Maps (mapbox, Qgis)
- Networks (Gephi, Cytoscape)
- Other graphs (Excel, Illustrator, Tableau*)
WHEN IS IT USEFUL?
WHEN THIS ISN’T ENOUGH.
WHEN IS IT USEFUL?

When it's necessary to intervene on the visualisation.
RASTER
VS.
VECTORS
THE NEED OF NEW SPECIFIC TOOLS
THE NEED OF NEW SPECIFIC AND INTUITIVE TOOLS
FEELING COMFORTABLE

- Select a dataset
- Copy and paste it in RAWGraphs
- Select a visual model
- Map data on the available visual variables
- Export the result in an open format
- Modify it with a vector graphics software
HOW TO CHOOSE A VISUAL MODEL?
DISPERSIONS

- Scatterplot
- Hexagonal Binning
- Voronoi Tessellation
- Delaunay Triangulation
- Convex Hull
HIERARCHIES

Not weighted
• Circular Dendrogram
• Cluster Dendrogram

Weighted
• Treemap
• Circle packing
• Clustered Force Layout
• Sunburst
Time chunks
- Gantt chart

Time series
- Area graph
- Horizon graph
- Steamgraph
- Bump chart
MULTICATEGORICAL & MULTIVARIATE

Multicategorical
  • Alluvial Diagram (Fineo)

Multivariate
  • Parallel Coordinates
Ordinal Scales
OTHERS

Distribution
- Box plot

Others
- Bar chart
- Pie chart
WHICH DATA?
**MATRIX**
(\textit{"Wide" or "Unstacked"})

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<thead>
<tr>
<th>Person</th>
<th>Age</th>
<th>Weight</th>
</tr>
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<tbody>
<tr>
<td>Bob</td>
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<td>128</td>
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<tr>
<td>Alice</td>
<td>24</td>
<td>86</td>
</tr>
<tr>
<td>Steve</td>
<td>64</td>
<td>95</td>
</tr>
</tbody>
</table>

**LISTS**
(\textit{"Narrow" or "Stacked"})

<table>
<thead>
<tr>
<th>Person</th>
<th>Variable</th>
<th>Value</th>
</tr>
</thead>
<tbody>
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RESOURCES

Github
• https://github.com/densitydesign/raw/wiki

Tutorial
• http://rawgraphs.io/learning/

Friendly Tips
• Use points to describe decimals.
• Don’t use points to describe thousands.
• Use the American date format (yyyy.mm.dd)
STEP BY STEP EXAMPLE
LOAD YOUR DATA

Open your data set
• For example:
  https://docs.google.com/spreadsheets/d/
  1g3mYU-0ada18HjClim_w6Uf3aVhVZV4w-QqP8/edit#gid=0

Copy & Paste in RAWGraphs
SELECT YOUR VISUAL MODEL

Click on the visual model you want to use, for example:

Treemap
MAP DIMENSIONS

On the left, you have the list of dimensions in your dataset.

On the right, you have the available visual variables.
HACK IT

On the bottom left corner, you can find the ‘download’ section.

Open the drop-down menu and select: “SVG”.

Type the file name you want and click download.

Open it in Illustrator / other vector editors.
TRY IT OUT!
YOU
TRANSFORM
SOCIETY
BY DESIGN
DIGITAL SOCIETY SCHOOL
WHERE CHANGE TAKES SHAPE