

Showcase of d3.js and it's possibilities in infographics using the Ukraine conflict as an example

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1 Introduction

The postmodern world produces huge amounts of data every second. Analysing this data leads can lead to better informed decision making in every sector. Yet the vast amounts of data created are often hard to comprehend with the human mind. Infographics is about finding ways to represent this data in visually appealing, yet easily understandable visual representations. Doing this quickly and always up to date can be crucial. There are many tools available to help with the creation of infographics. In this thesis we will do a deep dive into the possibilities of one of these tools. The 'd3.js' (D3) library for JavaScript. To show its capabilities we will create graphics from data of various aspects of the Ukraine conflict.

2 Basics

Infographics "Infographics (a clipped compound of "information" and "graphics") are graphic visual representations of information, data, or knowledge intended to present information quickly and clearly. They can improve cognition by utilizing graphics to enhance the human visual system's ability to see patterns and trends." ¹

What is it?

Technologies the project will be built using mainly JavaScript and html, with a bit of CSS. This allows to easily adapt the results into all kinds of web based applications, without compatibility issues which could arise by using a framework. Additionally we use the D3.js library. It "is a JavaScript library for manipulating documents based on data. D3 helps you bring data to life using HTML, SVG, and CSS." ² Versioning control is done using a git repository. As a back-up and for easy access, the repository is hosted on github.

d3.js, JavaScript, html, git

Data What kind? From where? Reliability?

Diagrams What are they? Why are they useful? Which types, and for what purposes do they exist?

3 Selection process

Using the available data: Which types of diagrams are useful? How can we show off as many different diagrams as possible?

¹<https://en.wikipedia.org/wiki/Infographic> - 31.03.2022

²<https://d3js.org/> - 31.03.2022

4 Creating a showcase

How do we pull it all together? In which context are the graphics to be shown?

5 Expectations

What will issues be? How do I think the possibilities are? How complex can we be in not too much time?