

This report shows the progress made so far in the development of the Data Visualization extensions, **highlighting the research, design choices, prioritization frameworks and first implementations.**

In the first weeks, I revised ITP1 materials and improved JavaScript skills through Udemy courses.

Then, **created a Google Forms on AI Usage** to collect data. **The challenge was the number of responses that may vary significantly.**

AI Usage

This survey aims to understand the generative AI usage from students around the world.

What age group do you belong to? *

☐ 18-25

☐ 26-35

☐ 36-45

☐ 46-55

☐ 56-65

☐ 66+

What gender do you identify with? *

☐ Male

☐ Female

☐ Non-Binary / Third Gender

☐ Prefer not to say

Figure 1 - AI Usage Survey

I also **analyzed the code** and **created a diagram** to understand the structure of the template.

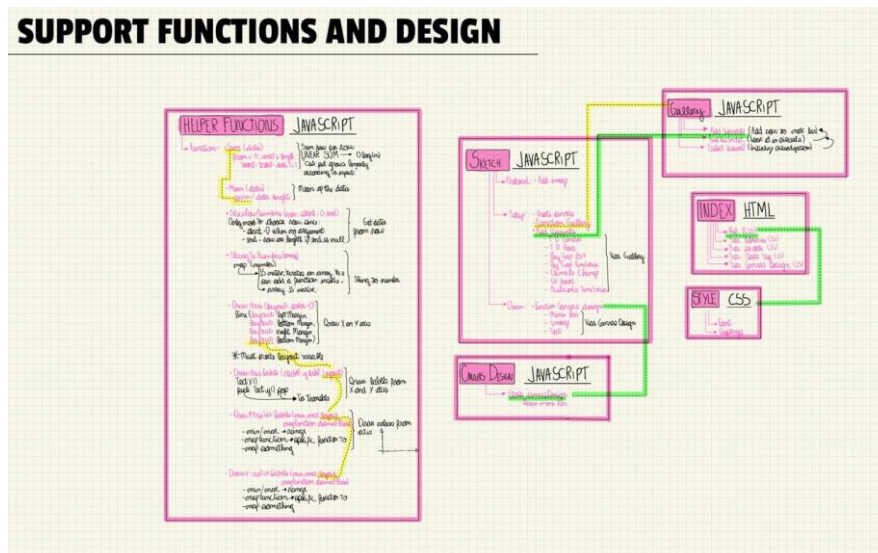


Figure 2 – Code Diagram Draft

With **MoScOw method**, I set “Must” for core features, “Should” for improvements in chart clarity, “Could” for non-essential enhancements and “Haven’t” for tasks that might delay the project.

For example, for the Tech Diversity Race (*Figure 3*), I would prioritize implementing charts first instead of creating a smooth transition in the pie charts, avoiding wasting time on less critical tasks and focusing on what really should be working properly.

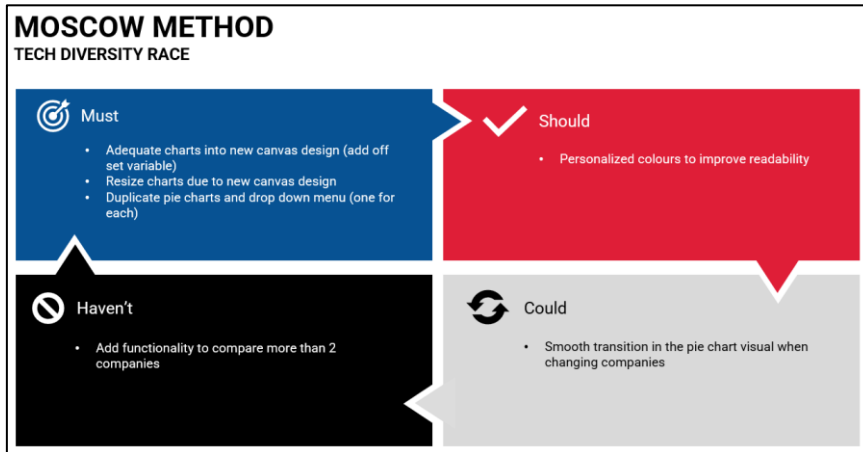


Figure 3 - Moscow Method: Tech Diversity Race

Moreover, with the **SWOT analysis**, I was able to identify where the extensions had strengths I could build on, and where weaknesses or threats could block progress.

For example, I identified a potential threat on AI Usage (*Figure 4*), as depends on sample responses. To address this, I followed up with people to ensure completion within two weeks.

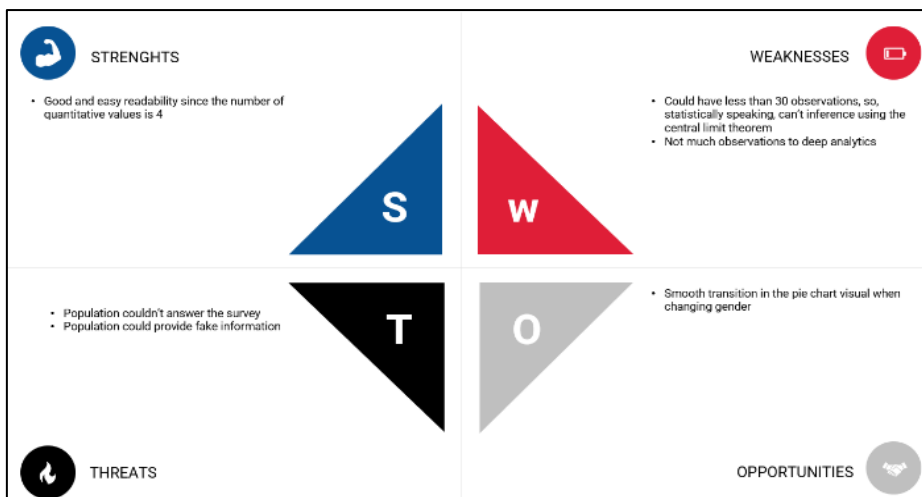


Figure 4 - SWOT: AI Usage

For design, I selected the Roboto font, since according to Colin Ware, in *Information Visualization: Perception for Design*, "sans-serif fonts such as Roboto enhance legibility in screen-based environments."

The colour palette was inspired by the UoL's website and color blind-friendly:

Regular



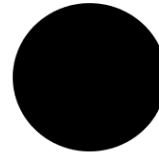
Color Name: Gainsboro
HEX: #DCDCDC



Color Name: Dark Cerulean
HEX: #075293



Color Name: Alizarin
HEX: #DF1E37



Color Name: Black
HEX: #000000

Color blind-friendly



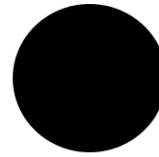
Color Name: Loblolly
HEX: #B2BEB5



Color Name: Dark Cyan
HEX: #007C91



Color Name: Permisimmon
HEX: #E66100



Color Name: Black
HEX: #000000

Figure 5 – Color Palette

Additionally, I created the app mockup using Figma.

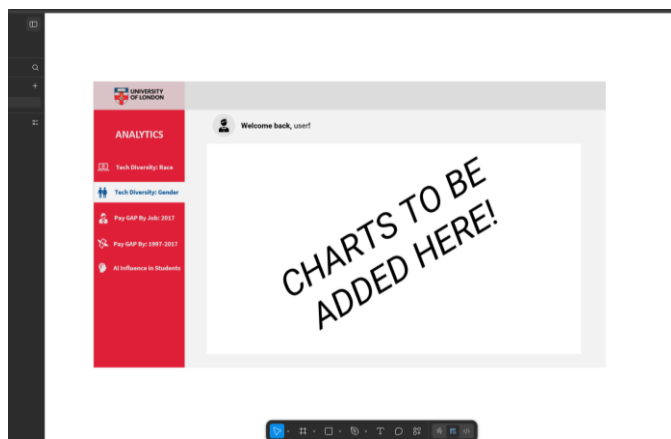


Figure 6 – Figma Design

So far, I have completed 78% of the project (measured by incorporating weight for each task from Gantt Chart, summing up to 100% for total completion), reaching 20h spent coding, totalizing over 1500 lines of JavaScript, where I implemented both extensions presented in class, a modularized canvas menu bar, adjusted charts to the new canvas background, smooth transition of bar charts in Gender Pay GAP, Bubble chart for AI Usage, and added a tooltip in Race Tech Diversity chart.

After midterm, I'll focus on adding features (e.g. mean per gender by week 12 for Diversity Race) and add the color blind-friendly colors. This'll be done by reviewing my deliveries from a Gantt chart and breaking them into smaller and more granular tasks within the KANBAN board every week. Each Friday I'll create a new backlog according to the Gantt chart to plan the upcoming week.