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Information Visualization (TNM111)
Assignment 1

Task1

<u>EU Referendum (2016):</u>

When looking at the maps and diagrams in the beginning of the website they clearly display the percentage of voters that voted No/Yes separately and the top 5 areas of that vote. Then it clearly represents the total outcome for each region displayed from largest to smallest. After that it shows the percentage of people in each area that voted (it does not say if it is based on eligible voters or not, but most likely it is.). It also presents in a simple diagram how each age gap voted.

In the part "Of the 30 areas with the…" the maps are supposed to show the results of the voting for the counties which have the most elderly people, fewest graduates and most people identifying as English. The maps are pretty small since you can't interact and/or zoom in on the maps it becomes difficult to see exactly which counties represent these statements. It would've been better to have one bigger map for each statement instead of the small ones next to each other.

When looking at how the UK voted 1975 compared with 2016, the bars that describe the meaning of the colors on the map are confusing. We both first thought that one bar described the range between yes and remain, the other bar the range between no and leave. That obviously doesn't make sense so we got confused and it took some time to understand. It would be better in our opinion to have one bar for each map so above the map in 1975 it should be one bar describing the range between yes and no as for the 2016 map the range between remain and leave.
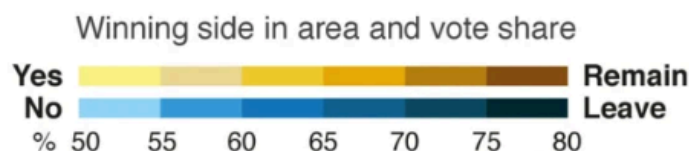
Europe referendum 1975 v 2016

1975

Question asked: **"Do you think the UK should stay in the European Community (Common Market)?"**

2016

Question asked: **"Should the UK remain a member of the European Union or leave the European Union?"**

Winning side in area and vote share

Yes — Remain
No — Leave
% 50 55 60 65 70 75 80

The last long diagram that displays all areas based on percentage that voted leave, makes it hard to find one specific area. Here it would have been beneficial to have an interactive diagram so the user can choose how to display it and more easily find the area it's looking for (for example alphabetically).

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US Presidential Election (2016):

When looking at the Presidential Election it is easy and clear to understand and it shows the most important information without the need of interaction. When interacting the user gets more details like the amount of voters and the number of votes gained by the winner and a visual representation of how much it is on the "vote line".

The two different views are good since the geographical view makes it easier to find and see which candidate won which state. On the other hand the electoral votes view gives more information about how much each state "is worth" without any interaction.

A con of this representation is that the other smaller candidates do not have a summary of their total votes, nor those the site shows the exact amount of voters, it only shows the amount of voters that voted for trump vs Clinton.

Shootings in Sweden (2023):

The representation is clear but needs interaction to reach is full potential, without interaction it can get a bit messy with dots everywhere. If the user zooms or changes the date interval it gets a lot clearer.

However, we like how it's possible to choose where in Sweden you want to investigate/see the amount of shooting without actually zooming or dragging the map. The same with the time slider, easy to use and gives you options.

The diagrams and graphs below are simple and makes the data transparent, with interactive alternatives to gain even deeper information.
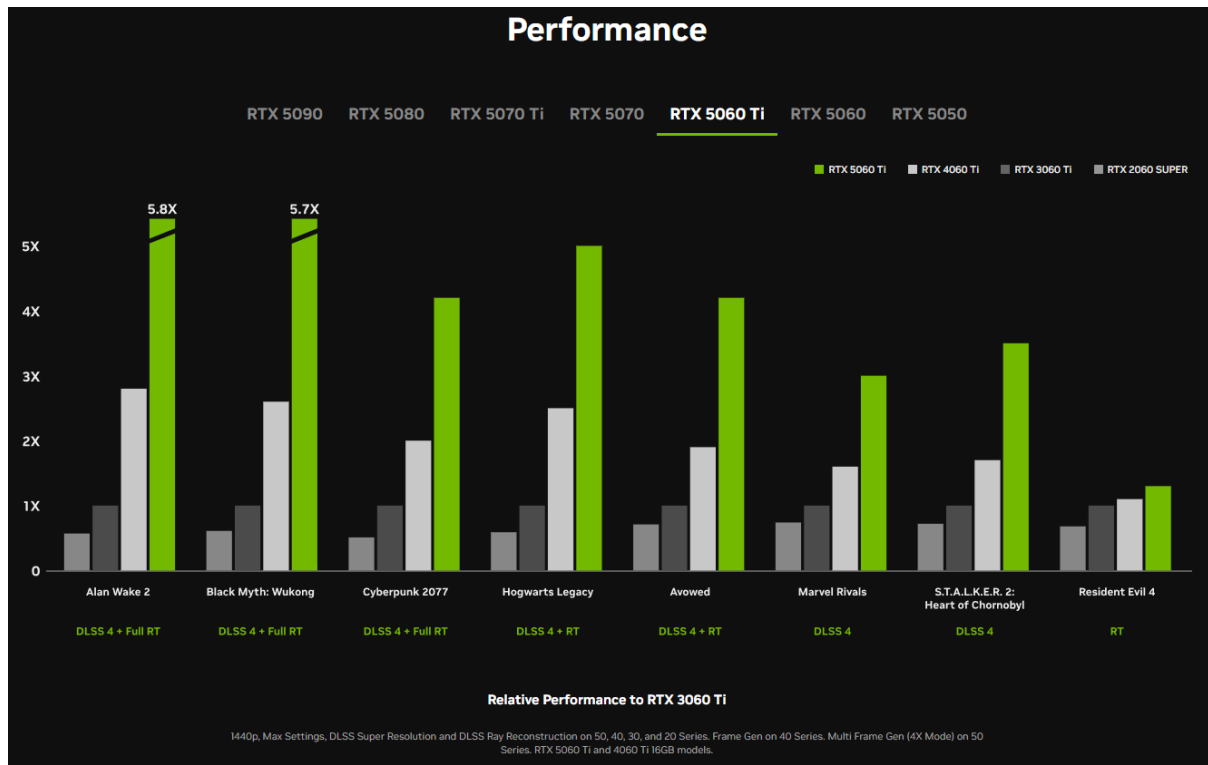
Free and Occupied Beds for Covid-19 Patients in Germany (2020):

You gain almost no information without interacting with the site. Here the user has to take time in order to understand what the information given by the site represents. Once you understand the information and how it is presented it is a lot easier to understand.

While zooming on the site, our personal opinion is that the zoom-mechanism take to big "jumps". It's difficult to smoothly zoom in and find a specific hospital because of this. Also, the date slider is very sensitive. It's very difficult to watch the availability of beds on a specific date because when you move the date slider just a little bit, you end up moving more than anticipated instead.
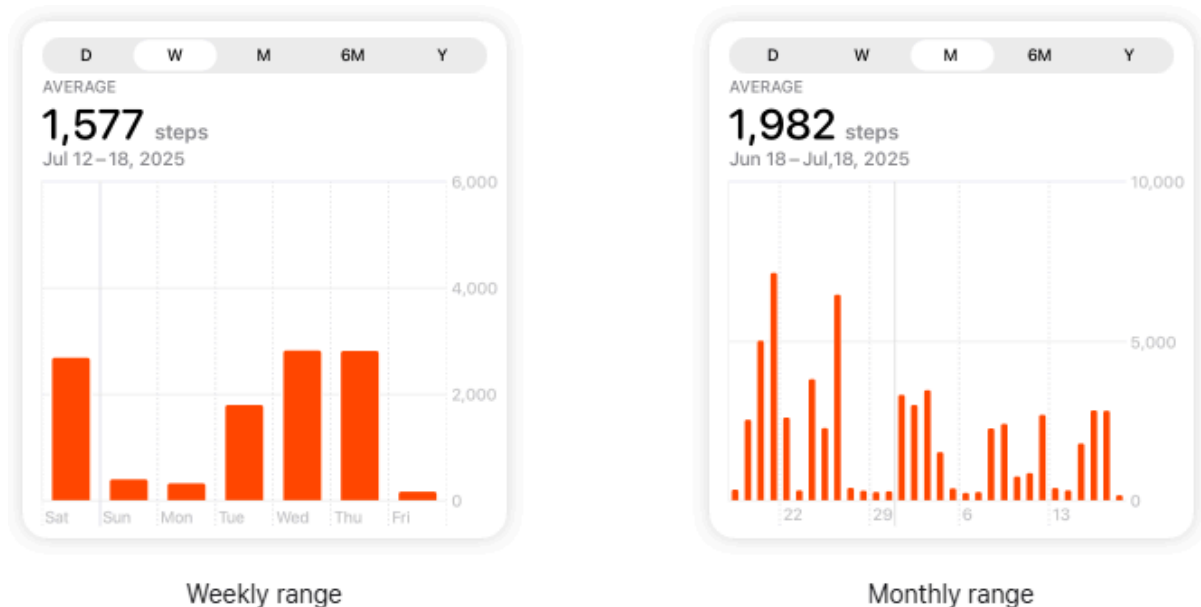
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Task2

Bad (https://www.nvidia.com/en-us/geforce/graphics-cards/50-series/):

Hard to see where they line up on the y-axis, especially those further away. What is even measured? What is performance? For us that understands it is the frames generated per second, but that is not given.

When looking at the fine text at the bottom it says the 40 and 50 series cards have used upscaling meaning that all the cards have not been tested the same (on their "raw" power). This gives false information when comparing the cards, we do not know how they compare against each other when not using the upscaling technique.

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Good (https://developer.apple.com/design/human-interface-guidelines/charts):

Weekly range

Monthly range

When looking at Apple's health app we can get the information of how many steps we have taken.

These charts show how many steps you've taken every day because of the numbers on the y-axis. It's hard to get an exact number but when it comes to this type of data it is not needed. Here the most important thing is to see if you reach a certain goal, like 10k steps a day. You get an easily accessed average number of steps taken based on the range choice at the top, as well as the dates the diagram reflects. If the user wants to see more information on a specific day he or she can click on the day and see the exact amount of steps taken and when the steps were taken, shown in intervals of one hour, for example 1500 steps between 13:00 - 14:00 then 700 steps between 14:00 - 15:00 and so on.

To summarize the charts are simple, easy to understand and doesn't raise any question by the user.