NM2207 Final Project Write-Up

My datastory intends to raise awareness and educate readers on deforestation via interactive data visualization. By reading my datastory, I hope that readers will be able to answer the question “What is deforestation, and why should I care?”. Climate change is one of the greatest battles the world is fighting. It has caused great biodiversity loss, and extreme weather events that have claimed the lives of many, and deforestation is undeniably one of the major causes of climate change. Many of us are privileged to live in cities, in particular, Singaporeans live in a very small area compared to the rest of the world and we might experience myopia when it comes to seeing the impacts of deforestation and the vast extent of it. We are also often ignorant of where the things we consume come from. Because we do not see the consequences of what we consume, many of us remain indifferent to deforestation and climate change.

The general themes of the website are “nature”, “raw” and “wild”. I wanted to keep the colors and aesthetics in line with these themes, therefore, I kept all div background colors to three main colors, light green, dark green, and white. I also used images of koalas to tell part of the story. However, due to the number of images I have added to my datastory, I initially had trouble positioning them properly. At first, I used ‘position:absolute’ which caused the images to constantly move when new divs are added. This was quite frustrating as I was constantly re-adjusting the position of images manually. However, I realized that I had to change it to ‘position:relative’ instead. I also added photographs that show the reality of deforestation such as the landing page’s background and pictures for the flip-cards. I did this so that there would be a greater visual impact on readers, to induce a change in mindset. To continue adding to the theme, I used Canva to customize my images, such as adding a 3D torn paper effect.

To make my datastory interactive, I added an interactive map which shows the global annual deforestation rate of countries from 1990-2015. Since the start of the project in week 9, I have been wanting to add a map as I was inspired by Our World in Data’s website on deforestation. I was doubtful if this would be viable, but session 12’s codealong came to the rescue. Therefore, the code for the map is largely from session 12. However, my data was in odd intervals, hence when I used ‘const years = d3.range (1990,2015,5)’ , there were years on the slider with no data, causing the map to look weird. Instead, I used ‘const years = [1990,2000,2010,2015]’ to specify the years I wanted. I also adjusted ‘zmin’ and ‘zmax’ to ensure that it showcases the data more accurately. I added this map as it visually shows how deforestation looks globally, addressing the myopic view and ignorance of the situation that some may have. Overall, I was really glad that my visualization came to reality!

I also used a couple of ‘onclick’ functions to add interactivity. For example, I added three pictures of species affected by the deforestation in the Amazon, and made this interactive by making the text appear when the picture is clicked. To do this, I used ‘onclick’ functions(session 4) such that when the image is clicked, the innerHTML changes from blank text to information about that species(session 3). This also required an if else loop (session 6) to allow the image to click and unclick. In addition, I added a contact form by using concepts learnt from Session 2. The contact form enables readers to send in their thoughts or questions they may have regarding deforestation, enabling the authors to read and address them. This increases interactivity and engagement with the audience by allowing their voices to be heard.

For the data used in the map and stacked bar plot, I initially thought that I could use my own csv files for the fetch API. However, I learnt that I had to connect the csv files to the server for it to work. I found this very fascinating and was amazed at how chart.js could read my data and plot it. However, the syntax used to retrieve data such as slicing and splitting were initially hard to grasp and it was a struggle. Since ‘stacked bar plot’ was not really touched on in class, I used the bar plot from code along session 9 as a reference and modified it from there. I consulted multiple sources such as Stack Overflow and YouTube videos on how to create a stacked bar plot and realized that I had to add ‘stack=”stack1”’ to each category of the dataset. For the stacked barplot, I should have divided the data by one million in excel first to make the numbers easier to read.

To make the website less static, I added some animations. This included two typewriter effects and flip-cards which addresses the “why should I care” question. I obtained the codes for these from W3Schools. Initially, I had difficulty aligning the cards in a straight line and decided to learn more about flexbox from W3schools, this was really helpful and made alignment easier. For the typewriter effects, I realized that it would only load once when the page is first loaded. I consulted my peers and they told me to use a ‘onmouseover’ function to trigger the function only when the reader is at that specific div. I also used CSS to change the cursor to a pointer when the mouse hovers over the buttons or images. To do this I used ‘cursor: pointer’ from W3schools.

If I had more time, I would have added a forum page below where people could leave comments and discuss deforestation with others. I would also add a homepage that has tabs to click on which would lead to different graphs and information. I would also love to add graphs that were more interactive, for example, on a click of a button the graph changes. I would also want to explore more advanced animations to make the website less static.

Through this module, I have learnt a lot about front-end web development and acquired extremely useful skills especially in an increasingly digital society. The 13 weeks spent on this module was incredibly fruitful and I thoroughly enjoyed myself. There was definitely a relatively steep learning curve for me as I had no coding experience prior, and I went into the first lesson feeling scared and apprehensive. There were many ups and downs, but with the help of Prof Kokil, Wien and Jeremiah, I managed to pull through and even coded my very own website! This module has taught me that consistency and perseverance is crucial to achieve a desired outcome, one that would make me feel satisfied and proud.

Word count: 1158

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