Final Project Write up

Overview

My chosen topic was Religion and Sports and the question that I decided to try and portray the answer to was "How does religion affect sporting psychology?". The rationale behind this was that I was taking a module HSI2002 that explored the topic of sporting psychology. Being an athlete myself, I found the role of religion central to how I cope with successes and failures in my athletic career thus far. I conducted literature review on the topic and found interesting results, in particular, I found a study done by Houltberg, Wang, and Schnitker (2017) titled "Religiousness and Perceived God Perfectionism Among Elite Athletes", examining how religious beliefs and practices affect athletes' coping with the pressures related to elite competition. I decided that how the study was constructed and its findings were interesting and unique to put in a datastory.

With regards to the method of portraying a datastory, I stumbled across an online datastory by Peiying Loh (2018) from Kontinentalist. Where it portrayed a beautiful and dynamic story that captured my attention, I further explored and found an article by Siti Aishah (2021) from Kontinentalist as well where she introduced the concept of scrolly telling where it refers to a type of digital storytelling that uses vertical scrolling as the primary means of navigating and presenting information/narrative. Therefore, I was introduced to the main external resources that supported my project.

Design Process

My design process was simple, I wanted to achieve smaller scope, to create a lower fidelity version of the scrolly telling examples that I have seen online which utilised similar resources mainly; Scrollama and Flourish.js, something that could fit in 30 hours and beginner experience in js. I wanted to keep things simple, easy to read and engaging.
Therefore, I came up with objectives to achieve these goals:
1. Minimalism in keeping the design clean and uncluttered.
2. Readability in selection of fonts, colours and spacing.
3. Clarity of direction in ensuring the content and navigation are clear.
4. Utilisation of dynamic multimedia/charts.

Learning Points

Throughout my project, I gained valuable knowledge and skills in utilising external resources online to enhance the creation of a website. I learned how to "rip" elements from external resources, "mash" them together creatively, and "modify" them to suit my specific needs. In HTML, I learned how to construct the basic structure of a website and its components. In JavaScript, I improved my ability to use DOM selectors effectively and adapt functions from external resources such as Scrollama. In CSS, I learned how to utilise the box model, selectors, and specificity to achieve desired styling effects. These learnings equipped me with valuable tools to creatively rip, mash, and modify elements as needed to effectively portray the content I wanted to showcase on my website.

I ripped, mashed and modified from:
1. Website template (The HTML, JS and CSS files as a whole)→ Scrollama
   https://github.com/russellsamora/scrollama
2. Charts (Indicated on the HTML file)→ Flourish https://flourish.studio/

Most Challenging Aspect

The most challenging aspect of this project for me was the process of "rip, mash, and modify" of external resources. Before I could effectively utilise these resources, I needed to have a solid foundational understanding of JavaScript and CSS code. This required me to spend a significant amount of time searching for appropriate resources and learning how to adapt them to suit my specific needs. It was crucial for me to have a deep understanding of the basics of JS/CSS in order to effectively rip, mash, and modify the resources to achieve my desired outcome.

More specifically, in the usage of Scrollama; I was stuck in trying to find ways to mash and modify the templates given such that I was able to scroll through and transition from chart to chart in sequence. I was only able to get through this problem with the advice of Jeremiah, it was certainly eye-opening the way Jeremiah was able to tackle the problem, he utilised a more holistic and practical approach towards the code whereas I was stuck in the approach of looking for a specific function in JS/selectors in CSS /tags in HTML that was able to solve my problem. When in fact, the solution needed was a simple and practical approach of using the three languages in conjunction to solve the problem.

Example:

Errors faced:

I was not able to make any changes to my code that will help input different charts into the <figure> tag in the html and have them show one by one as I scroll through my webpage. I tried these steps:

- Giving a separate <p> for each chart and giving each chart a unique class → updating the handleStepEnter() function in my JS code to dynamically update the <figure> tag with the appropriate chart based on the current step (progress of scrolling) by using a switch statement that checks the value of response.index and updates the <p> element with the corresponding class name. → Add CSS style for the specific class that I used with the JS functions to make the corresponding <p> visible.
- Giving a separate <div> for each chart within the <figure> tag → updating the handleStepEnter() function in my JS code to update the content of the <figure> tag with an appendChild function → Edit CSS by editing the <figure> tag's position.
- In a last ditch effort, I tried to swap around the positions to make the charts stick and the text be relative to scrolling but it did not look presentable and clear for the user to read.

Solution: (Guided by Jeremiah)

Finding a way to transition between charts to charts → Utilisation of the simple concept of showing a chart and hiding the rest.

1. Separating the charts into different divs eg.

HTML:

```html
<figure id="charts">
            <!--Chart 1: -->
        <div class="flourish-embed flourish-hierarchy" data-src="visualisation/13110848"
data-height="426px"><script src="https://public.flourish.studio/resources/embed.js"></script></div>

            <!--Chart 2: -->
        <div class="flourish-embed flourish-network" data-src="visualisation/13111412"
data-height="426px" ><script src="https://public.flourish.studio/resources/embed.js"></script></div>

            <!--Chart 3: -->
        <div class="flourish-embed flourish-radar" data-src="visualisation/13111312"
overflow="scroll"><script src="https://public.flourish.studio/resources/embed.js"></script></div>
```

1. Hiding all the charts first.

CSS:

```css
figure div {
  display: none;
}
```

2. Creating two functions; 1 to show a chart, the other to hide the rest.

JS:

```js
  const charts = figure.querySelectorAll('.flourish-embed');
//.flourish-embed refers to the class of my chart in html
  console.log(charts);
  function hideCharts() {
    for (let i = 0; i < charts.length; i++) {
      charts[i].style.display = "none";
    }
  }

  hideCharts();
//hiding and showing > add on respectively to show/transition to more charts
  if (response.index === 0)
    charts[0].style.display = "block";
  else if (response.index === 1)
    charts[1].style.display = "block";
  else if (response.index === 2)
    charts[2].style.display = "block";
}
```

3. Fixing the CSS, so that the charts are able to be shown in full.

```css
article {
  position: relative;
  padding: 0 1rem;
  max-width: 55%;
  /* height: 500px; */
}
figure {
  position: -webkit-sticky;
  position: sticky;
  width: 40%;
  top: 22% !important;
  height: 426px !important;
  right: 0;
  margin: 0;
  -webkit-transform: translate3d(0, 0, 0);
  -moz-transform: translate3d(0, 0, 0);
  transform: translate3d(0, 0, 0);
  background-color: #8a8a8a;
  z-index: 0;
}
```

Limitations

With regards to the limitations of my project, they are as follows:
1. Content:
    a. The data story was constrained in scope, as it delved deeply into specific aspects of the presented topic without covering a broad range of related areas. This narrow focus may have resulted in a one-sided perspective being portrayed.

    b. Continuing from the previous point, I attempted to depict a single research paper on the website. However, due to the numerous sections and intricate details within a research paper, it proved challenging to adequately illustrate the entire paper in a way that would make sense to the website visitors.

2. Website
    a. The website contained a substantial amount of information in certain areas, which could have made it challenging for readers to digest, despite the presence of charts to supplement their understanding. However, I attempted to justify this approach by considering the website's target audience, who might be interested in the topic and willing to invest the time and effort to thoroughly read through the content, similar to a research paper.
    b. The design of the website was simplistic and could have utilised the illustration of information through more differentiated means.

Improvements

If I had more time on the project, I would definitely address the limitations that I have found and certainly look for more gaps in my project to better effectively portray a datastory

1. Develop a more comprehensive data story by doing a narrative review about the topic rather than focusing on a single paper.
2. Utilised more features of Flourish and Scrollama to create more interactivity and a more dynamic portrayal of the information and charts. For instance, incorporating more animations, better transitions and interactive elements to make the datastory more visually appealing and intuitive for users to navigate.

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