

Undergraduate Theory and Practice Essay Cover Sheet

Student Number: 33727356

Module Code and Title: MC53034A Interactive Media

Essay Question: Analyse the development and realization of your practical work

Word length: 2595

*** Please paste your essay into this document and save the file as your student number and the module code (eg 33331111MC51001).**

Tiger Haven

Be part of the change

The global tiger population has undergone a dramatic decline over the past century, with only an estimated 5,574 individuals remaining (World Wildlife Fund, 2024). These majestic creatures face endangerment due to human activities that devastate, degrade, and fragment their habitats. Road construction, deforestation for agriculture and lumber, and various development projects all contribute to this crisis. In response to this urgent situation, Tiger Haven was established as a specialised conservation organisation. Our mission is threefold: to ensure the survival of tigers, safeguard their habitats, and prevent poaching. We offer individuals the opportunity to support our cause through financial contributions and participation in tiger adoption programs. While tiger conservation remains our primary focus, we recognise the importance of presenting information in a compelling way to effectively convey our message and encourage support. This essay will analyse and reflect upon the development and launch of the Tiger Haven website. It will also delve into the collaborative project undertaken with my partner Harminster, critically examining key decisions, challenges encountered, and lessons learned throughout the process.

The design of Tiger Haven's website was influenced by research on several interactive platforms, including Defeat B.O.C.O (Defeat B.O.C.O. , n.d.), Resn's Little Helper (Resn's Little Helper, n.d.), and Dogstudio (Dogstudio, n.d.). Inspiration was drawn from Dogstudio's creative approach, aiming to create an engaging website that maximises outreach efforts. Initially, the design process was informed by captivating user experiences observed on these platforms. While

Dogstudio's focus on a single animal highlighted the urgency of endangered species, the inviting interactions on the other websites inspired us. The goal was to utilise these interactive elements to create a similar sense of engagement for our tiger conservation website.

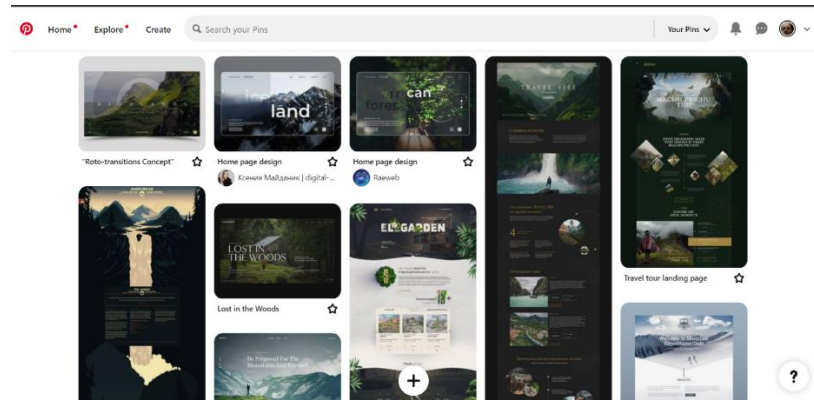


Figure 1: Inspiration of concepts saved on Pinterest



Figure 2: Tiger Haven brand colours

I began examining various websites, such as the International Fund for Animal Welfare (IFAW) and the World Wildlife Fund (WWF), two well-known organisations dedicated to animal conservation. I made a note of the design and its hierarchy, as well as how simple I found their navigation to be. I paid particular attention to how current design trends were integrated, concentrating on how they felt intuitive in the navigation and how the visual hierarchy led my eye through the content. This is crucial because well-chosen design decisions may significantly impact how simple it is for users to interact with our website, which in turn can impact how they perceive the website. Additionally, Pinterest provided a range of examples of concepts on animal

preservation websites that I took inspiration from to design a few pages such as the conservational efforts page (see Figure 1). Duckett (2014) claims that content and design should be guided by the objectives of your users, understanding their motivations and goals which is why the time initially invested in creating the Figma pages was significant.

I was instructed to provide a presentation using the Pecha Kucha format, in which each slide allowed only 20 seconds for explanation, was a challenge. However, this dynamic method of presenting pushed me to refine and articulate these projects ideas succinctly, fostering deeper development of this project (Liao, Lewis and Winiski, 2020).

- Transparency with every purchase a user makes on our website.
- Track your tiger in real time.
- Special mention in our magazine.
- Visitations to the conservation.
- Interactive 3D space.

This presentation allowed me to highlight Tiger Haven's unique selling points to my classmates, who were close to the demographic this website was aimed at.

Feedback from the Pecha Kucha session proved invaluable for the advancement of Tiger Haven. One notable suggestion was to enhance the website with personalised information about the tigers, including interesting facts and human-like characteristics, aimed at improving adoption rates. Another valuable input was the importance of informing users about the possibility of tiger and human coexistence. Additionally, there was a suggestion to incorporate a feature displaying the number of tigers alive when users were born. Despite my classmates not being within Tiger Haven's target demographic, their feedback significantly contributed to its development.

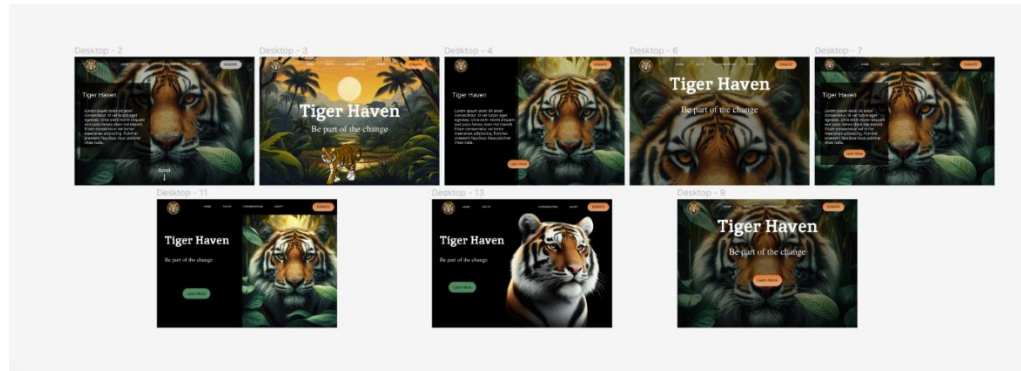


Figure 3: First iterations of homepage prototype

In designing Tiger Haven's website, the goal was to create a professional and visually appealing interface tailored to the targeted demographic, primarily individuals aged 25-35. Drawing inspiration from renowned websites like Apple and Van Cleef, emphasis was placed on consistent spacing and typography to enhance professionalism. Garrett (2011) expresses that typography plays a significant role in communicating brand identity and creating a visually cohesive design. As 'our eyes quickly get tired trying to take in lots of text in a more ornate typeface' (Garrett, 2011, p.147), I was against including a large portion of text on the landing page as soon as it loaded on the user's screen. This approach was evident in the initial iterations of the website design (see Figure 3). While initially, there was a focus on incorporating smooth animations for a professional user experience, upon reflection, more attention could have been given to spacing and fonts to achieve simplicity and elegance, in line with the principles of effective typography. Ensuring clarity and readability in body text through the use of simpler fonts like Jomolhari or Roboto, and employing typefaces with a touch of personality for larger text elements or short labels, the website aimed to strike a balance between style and usability, ultimately enhancing the overall user experience. In order to keep users interested and engaged with our website, it was imperative that we develop a positive user experience while also maintaining a healthy reservoir of goodwill (Krug, 2014, p.119). This reservoir represents the level of trust,

satisfaction, and overall positive sentiment that users have towards our website and brand. Every interaction has an impact on how much of this reservoir is filled or drained, from the information provided to the ease of navigation and responsiveness of the design.

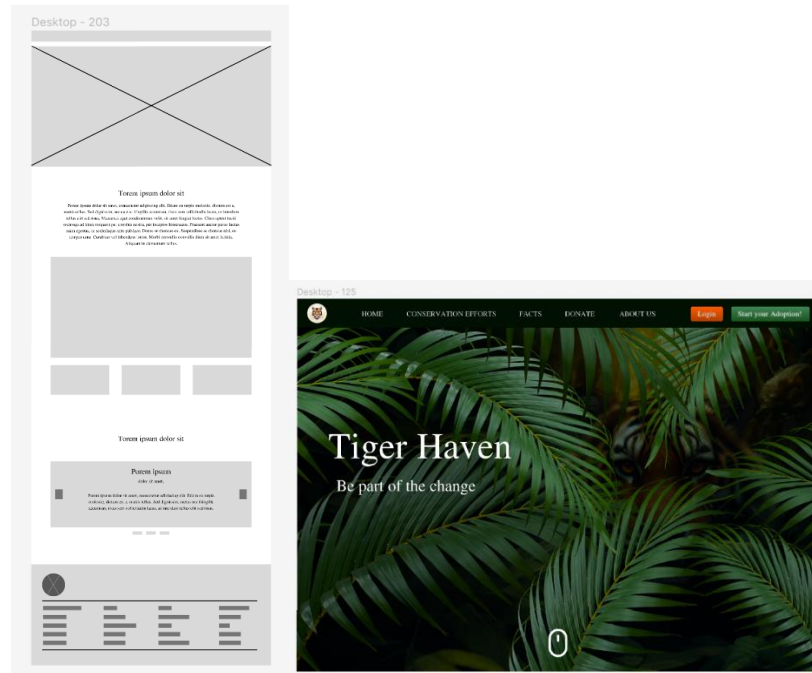


Figure 4: Development of fidelity wireframe and final product

Final iteration of the landing page. It needed to be strong to retain user's reservoir of goodwill.

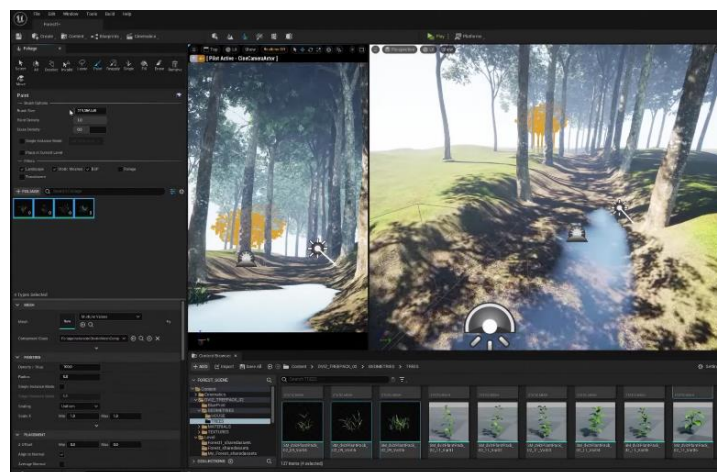


Figure 5: Development of tiger conservation section.

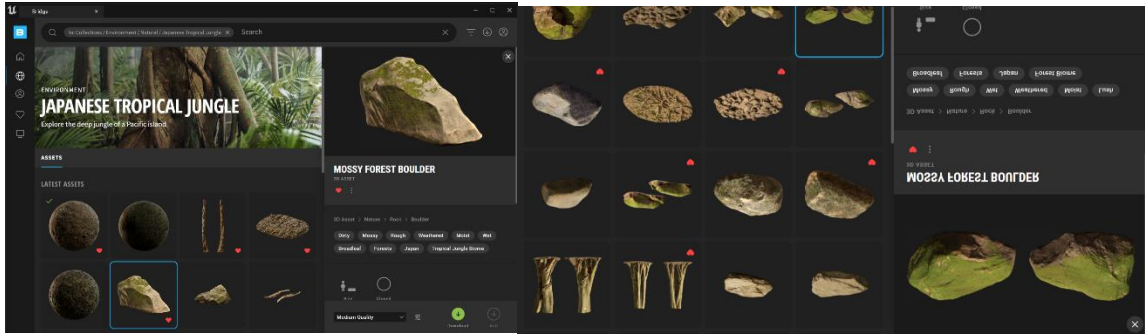


Figure 6: Range of assets used.

During the initial stages of development, a vision for the Tiger Haven website was to include an ambitious plan for an interactive 3D environment within the conservation efforts section (see Figure 5). Inspired by immersive experiences discovered during preliminary research, the concept aimed to provide users with a dynamic and engaging platform for exploring tiger habitats and learning about conservation efforts. The proposed implementation involved utilising Unreal Engine to create the interactive space, seamlessly integrated with the website's HTML structure and Quixel bridge to download the assets (see Figure 6). Tutorials and technical resources were consulted to understand the feasibility of this approach and to explore methods for linking the 3D environment with HTML elements. The goal was to enable users to navigate to the 3D space by clicking on the conservation efforts section in the website's navigation bar, immersing them in a virtual representation of tiger habitats. Additionally, there would have been floating cards in this section where if a user would interact with them in this virtual space, they would be taken to the chosen page such as the Research and monitoring.

Despite thorough preparation and research, several challenges emerged during the execution phase, ultimately leading to the decision to pivot away from the 3D environment concept. Technical constraints, including compatibility issues with Unreal Engine and limitations in hardware resources, proved overwhelming within the project's timeframe. Additionally, concerns were raised regarding the accessibility and user-friendliness of such a complex feature,

particularly for visitors with less powerful devices or slower internet connections. While the 3D environment was not realised in the final iteration of the Tiger Haven website, the exploration of this concept provided valuable insights and contributed to our understanding of the project's scope and limitations.

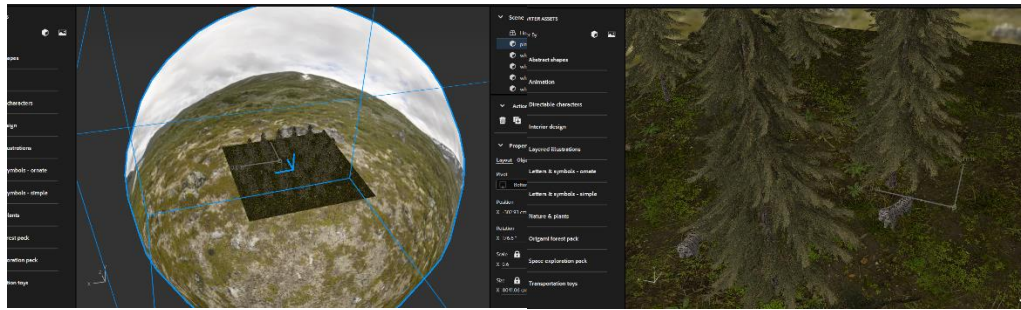


Figure 7: Tiger conservation made with Adobe Aero.

An alternative option that was explored was AR. Additionally, the complexity of integrating 3D assets into the website's HTML structure presented unforeseen complications. Recognising the importance of finding a viable solution within the project's timeframe, i shifted our focus to AR. Implementing the AR feature presented its own set of challenges. Initially, I replicated 3D models of tigers in their natural habitat using Blender. However, feedback revealed inaccuracies in the environmental elements, such as the presence of pine trees in a habitat where they do not naturally occur. This necessitated adjustments to the assets and ultimately led to the decision to focus solely on the tigers themselves, removing irrelevant elements to streamline the AR experience. Transferring the revised 3D model to Adobe Aero for AR implementation revealed further complications (see Figure 7).



Figure 8: QR code of Tigers.

Upon scanning the QR code, the placement of the tigers and environmental elements was inconsistent and detracted from the intended user experience. Despite numerous attempts to rectify the issue, including repositioning assets and adjusting settings, the desired result was difficult, so I chose to just have the tigers on their own (see Figure 8).

During my third year, I took a 10-day marketing placement, which unexpectedly extended to a 9-month internship. This extension arose when they proposed that I continue my role, with a focus on developing the Paperplanes website. Despite my initial expertise being in design, I found the prospect of delving into coding for this project really interesting, so this was my focus for the project. While I had always considered coding a weak area for myself, I recognised its importance, especially for the interactive media project. Initially, coding presented a significant challenge for me. However, as time went on, I grew more interested in it and realised that practical experience was the best way to learn. With each hurdle I faced, I became more determined to find solutions, pushing myself to seek practical answers. Working with a partner was beneficial in many ways, but it also introduced interruptions that hindered my ability to troubleshoot issues on my own. Through this experience, I discovered a preference for solitary work, where I could navigate technical problems at my own pace. This independence allowed me to focus more deeply on troubleshooting and resolving issues effectively. My primary focus in this project was translating

the designs in Figma into code. Initially, I was doubtful about whether I could achieve this, especially with the transitions, which seemed challenging to replicate at first. However, I quickly got the hang of it, and I can say that my greatest strength based on this project was the coding aspect. The Facts page was one of the pages I created, which compelled me to conduct a lot of research on sites such as Stack Overflow.

I created the “Facts” page with horizontal scrolling and enabled smooth scrolling on the page. I divided each page into 4 sections, labelled as a, b, c, and d, and assigned them corresponding IDs: #a, #b, #c, and #d. If the user was on section a and clicked on b, they would be taken to b. The smooth scrolling made the transition from one page to another appear the same as the one on Figma. The same process applied to navigating from section b to c, and from c to d. Compiling these sections into a mini navigation bar, similar to the one present in the Figma design, was initially tedious, but I soon understood it. I positioned the 4 IDs, with given classes named "Tiger Behaviour," "Tiger Population," "Diet," and "Threats They Face." Each of these titles would take the user to a respective section on the horizontal page upon clicking and should stay in its given position when scrolled horizontally and not vertically. Once this was done, all that was needed was to create a fixed position for this navigation section on the facts page. After some research, I found a solution that was close to what I had wanted, as demonstrated in this example:

<https://jsfiddle.net/Starx/EzXub/>.

```
<section id="a">
  <div id="In-This-Section-1">
    <h3>In this section</h3>
    <ul>
      <li class="Current-Population"><a href="#Current-Population-Section" class="active">Current Population</a></li>
      <li class="Population-Growth"><a href="#Population-Growth-Section">Population Growth</a></li>
      <li class="Geographic-Distribution"><a href="#Geographic-Distribution-Section">Geographic Distribution</a></li>
    </ul>
  </div>
```

Figure 9: "in this section" navigation.

With some modifications, I managed to have the navigation section stick to the page while the page moved to a different section upon click. The texts for each of the four sections had to be repositioned due to this change, as I had assumed they could retain their properties, but that wasn't the case. As time was running out, I was unable to include the second part of the “in this section” navigation that would have utilised sticky positioning when the user is scrolling down. It would have followed a similar layout as the facts page navigation bar as each of the paragraph headings would have their own id (See Figure 9). Implementing the navigation bar changed the font layout of the pages which was annoying to fix. However now I believe there to be a simple fix to this which is just giving the navbar.css this - `html {font: font style here}`. This should reset the font style to its original style before its change. Another way I would have solve this problem was to use PHP. If I had used PHP instead of directly coding the navigation bar into my website, I could have avoided the layout issue experienced on the Facts page. PHP's ability to dynamically include the navigation bar across all pages would have ensured consistency and prevented element displacement.

Throughout the development of the Tiger Haven website, Parallax and jQuery were consistently utilised across the entirety of the website. Implementing smooth scrolling using CSS was a straightforward process. The HTML element's `scroll-behaviour: smooth;` property was employed to achieve a seamless scrolling effect without the need for JavaScript. Continuous testing during the development phase ensured that the smooth scrolling effect remained consistent across all sections of the website, reducing the possibility of inadvertent clashes with other features. Thorough compatibility testing on both Chrome and Firefox was conducted to ensure optimal performance across popular browsers.

In order to overcome challenges and achieve project goals, teamwork became essential during the development stage. I had informed Harminder of a useful tactic which was to download Visual Studio Code and use the live sharing extension to allow us to view code and make changes at the same time. Despite its usefulness, the extension had some drawbacks, most notably limiting the ability to preview code in real time. However, i now believe this could have been resolved by managing shared local servers and adding a localhost. This should allow us to run the code live despite working on it live. An adjustment to the procedure was made to get around this restriction. We got around the issue by having team meetings during each Live Share session, where either of us would share our screen to allow the other participant to view the code in real-time.

In conclusion, this project has been immensely valuable in honing both my coding and design skills, leading me to feel considerably more adept in these areas. The experience has also prompted me to consider a shift towards web development over marketing, aligning with where my strengths and interests lie. Collaborating with a partner allowed me to navigate delegation and task assignment effectively, providing insight into teamwork dynamics that I look forward to further exploring. Managing time efficiently proved to be a challenge, but one that I tackled head-on, resulting in a sense of pride in both personal growth and the progress of Tiger Haven. Utilising a diverse range of resources, including forums, tutorials, and books, proved instrumental in enhancing my coding abilities, underscoring the importance of continuous learning and adaptation in this field. Overall, this project has been a fulfilling journey of skill development, collaboration, and self-discovery, leaving me optimistic about future endeavours in web development.

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