

## Social Challenge Selection: Challenge B - Climate Change Awareness

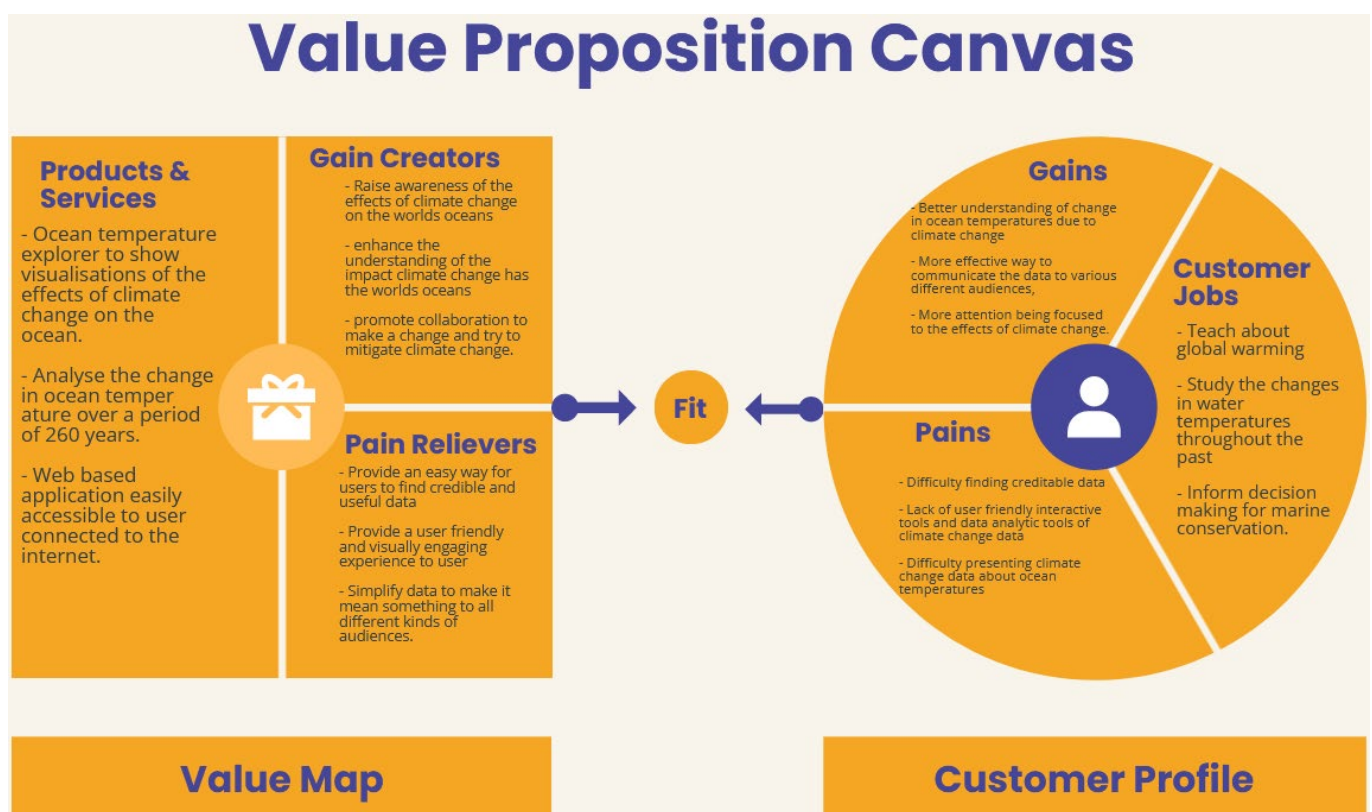
### Product Idea: Ocean Climate Change Visualiser

**Purpose:** The purpose of Ocean Climate Change Visualiser is to raise awareness to climate change by using an interactive and engaging map of the world that will show a visualisation of the ocean temps from the past 260 years. The problem Ocean Climate Change Visualiser aims to solve is the lack of awareness being brought to the rising sea temperatures and the lack of being able to show the differences from past to the present temperatures. Ultimately trying to promote a better understanding of the issues and making a contribution to addressing climate change. The product addresses the social challenge of Climate Change Awareness by focusing on an overlooked aspect of climate change. The visualiser helps users understand the impacts of climate change on the oceans which raises awareness about the issue. The website also provides raw data allowing for users to use the data for their own research, projects, or awareness campaigns which helps contribute to the broader effort of educating others about climate change and the need to take action in order to mitigate it.

**Target Market:** The target market for this product is anyone who has an interest of climate change or is effected by climate change particularly the ocean temps. Ocean Climate Change Visualiser is perfect for educators to teach students about climate change and for students to use for if they are conducting a project. Scientists will also find the website beneficial as they can get the raw data and use it for any research related to the ocean. The intended beneficiaries are individuals and organisations working to mitigate climate change, bring awareness to climate change or are working with anything related to the ocean's temperatures.

### Value Proposition:

- The Ocean Climate Change Visualiser provides users with a visually engaging platform that will allow for them to explore and analyse the difference of ocean temperatures from the past 260 years. The raw data will also be accessible to those who want to use it for their own purposes in furthering spreading awareness of the effects of climate change. Users will also have the ability to search by area and be provided with a linear graph displaying the changes of ocean temps in that area for projects, research or whatever they want to do with the information.



## Competitive Advantage:

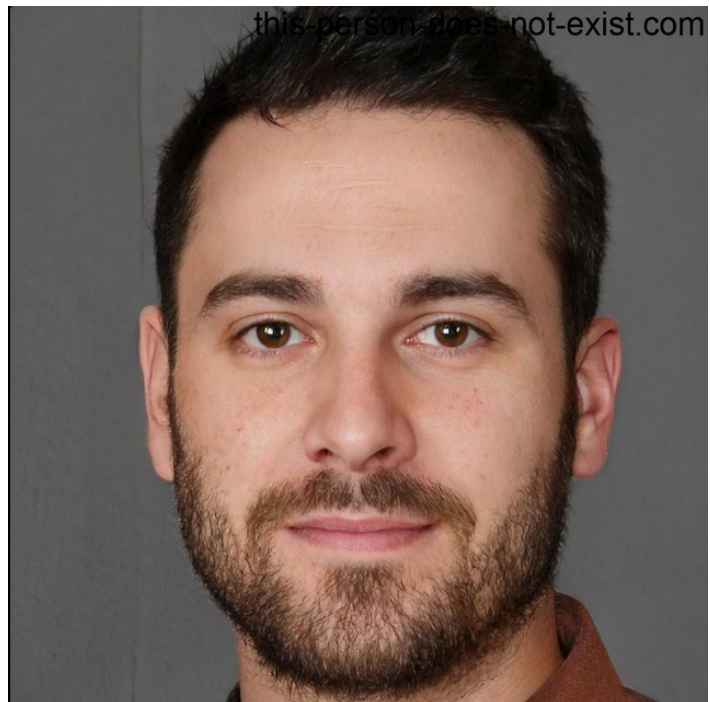
- Ocean Climate Change Visualiser stands out from the other applications that are similar because it focuses just on ocean temperature data which is usually looked over by a lot of the competitors, most focus on the change of land temperatures and exclude the oceans. It will also have a more user friendly interface compared to competitors, with higher customisability like being able to change the year from which the data is showed also have the option of specific locations. The raw data will also be available to users so they can use it for their own projects and research.

## Persona

Name: Dr Joseph Price

### Description / Attributes:

- Dr Joseph Price is a scientist who specialises in viewing the effect climate change has on the world and in particular the effects on the ocean. He is 31 years old and has been conducting in his area of expertise for since he graduated university.
- Climate change expert
- Passionate about ocean conservation
- Strong public speaker and communicator
- Collaborates with international research teams



### Needs:

- Easy to read data
- Interactive visual tool to present the data to various audiences
- Access to the latest scientific research and technology
- Funding and support for research projects

### Goals:

- To educate others of the impacts of climate change on the ocean
- Help to mitigate climate change
- Develop innovative solutions for ocean protection and restoration
- Influence policy and decision-making related to climate change and the ocean

### Skills & Experience:

- Ph.D. in Marine Science with a focus on climate change and oceanography
- Published numerous peer-reviewed articles in prestigious journals
- Participated in international conferences as a speaker and panellist
- Proficient in using various data analysis and visualization software
- Experience in conducting field research, including underwater expeditions
- Active member of professional organizations related to climate change and ocean conservation

## Competitive Review

### Alternative product: NASA Earth Observatory Temperature Sea Surface Temperature

(Website: <https://earthobservatory.nasa.gov/global-maps/MYD28M>)

#### Purpose

The purpose of Ocean Climate Change Visualiser is to provide an interactive and visually engaging platform that will educate users on the effects of climate change and what it is doing to our oceans and to provide them with the data in an easy to understand way so it can be used by everyone for their own purposes or projects without the hassle. NASA has a very similar purpose, its purpose is to provide visualisations of global climate data though I am just focusing on the Sea Surface Temperature map page which provides users with visualisations of the earth's sea surface temperature for all over the world to help users understand Earth's climate patterns and changes.

#### Target Market

The target market of Ocean Climate Change Visualiser are educators, students, researchers/scientists and climate change enthusiasts. Sea Surface Temperatures target market are researchers, educators, students, and individuals interested in climate change and global environmental data. The two products target markets are pretty much identical. This doesn't come to a surprise as they both have purposes that are very similar which would mean they most likely would have a very similar target market.

#### Value Proposition

The value proposition of Ocean Climate Change Visualiser a user-friendly web platform that visualises ocean temperature changes from the past 260 years and related environmental impacts, offers educational resources, and raw data that is easy to understand and read. Meanwhile the NASA Sea Surface Temperatures map does provide a visual ocean temperature map too, it only has data collected back to July of 2002. Though the data may be very accurate on the map due to the data being collected from a satellite image, Ocean Climate Change Visualiser will provide data from a lot longer ago.

#### Suitability for the Persona

The Ocean Climate Change Visualizer is tailored to our Persona, offering a focused platform to visualize and understand the impacts of climate change on ocean temperatures and related environmental issues, while providing educational resources and the raw data that will be easy to read and use for their own purposes to help provide a platform to spread awareness for climate change. The NASA Sea Surface Temperatures provides ocean temperature data and engaging visualisations, which is useful for our Persona. However, it does not provide an easy way to download the data. There is a way to download the data but it is not directly through the same webpage as the visualisations (link for download at the bottom text in figure 1). As can be seen in figure 2 the data that can be downloaded after following through the pages has a few options of accuracy related to the temperature, but it is not very readable as it is supplying each latitude and longitude point with the temperature which doesn't really meet the persona.

#### Design Principles

The NASA Sea Surface Temperatures clearly displays the available data layers (figure 3) and provides real-time updates when users change the settings. However, it may not provide sufficient feedback regarding the loading of new data, which could lead to confusion for the Persona. The tool allows users to select different data layers and time frames, but there is limited guidance on how to avoid errors or interpret the data correctly. The Persona may face difficulties understanding the full implications of the presented data. The website has a clean and simple design, focusing on the data visualization. However, the Persona may find the lack of additional resources or context less engaging than Ocean Climate Change Visualiser. Some pain points are Absence of advanced features or shortcuts for quick access to specific data or settings, inadequate help and documentation to address the Persona's needs and questions, limited guidance on error prevention and data interpretation.

Figure 1:

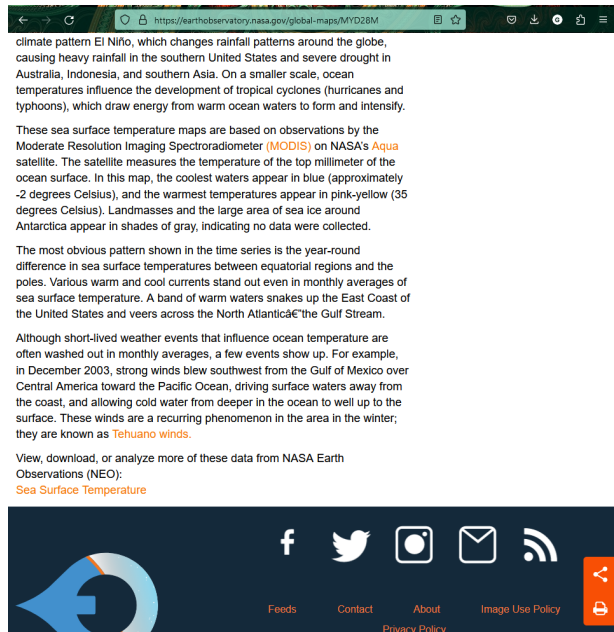


Figure 2:

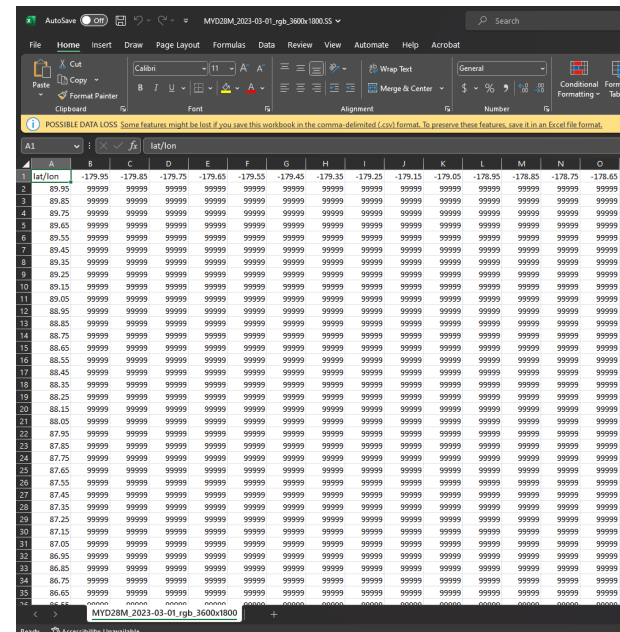


Figure 3:

