Phipps Living Building Project

Executive Summary

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Background

The organization that our team worked with is Phipps Conservatory. Specifically, the Center for Sustainable Landscapes (CSL) also referred to as the Living Building. The mission of the CSL is to advance sustainability and promote human and environmental well-being through action and research. The CSL serves as Phipps' education, research and administrative facility and is an integral part of the visitor experience functioning as a "living museum." The purpose of the CSL is to demonstrate the importance of the undeniable connection between human and environmental health. One way the CSL aims to achieve this goal is by remaining energy positive (generating more energy than it uses). By proving that an energy efficient building of this size is not only eco-friendly but also economical, the staff at Phipps hopes that the CSL serve as a model for future architects, paving the way for a greener future.

Project Description

Project Opportunity

Currently, internal staff at Phipps are having difficulties navigating Automated Logic, a site that displays real time data regarding Phipps buildings. The data includes ranges from energy production and consumption to various measurements of water and air quality. Not only is the site hard to navigate since there is no way for a user to search for specific data, but there is also too much information to sift through. Due to the lack of intuitive design in Automated Logic, it has become difficult for Phipps internal staff to utilize the data effectively to perform functions such as designing educational classes or writing grants. The opportunity gap to be filled through the completion of this project is providing Phipps with a dashboard which presents relevant data and statistics in a more meaningful and understandable way.

Project Vision

The project vision is an interface which presents the CSL's data in an understandable and educational way. Our idea is to build a web solution, which allows for the greatest viewability and compatibility with different devices. This vision seeks to meet the ultimate goal of educating and promoting sustainable living by providing staff and eventually visitors with a simple way of understanding the importance of the CSL. In order to allow for a smooth transition from the old interface to the new one that we develop, we modelled our own interface around some of the more desirable features of the interfaces of their current dashboard.

Project Outcomes

Our technology outcome is a dashboard that is not only an interactable data interface but also a manageable and extendable content system. It is taking complex data and displaying it in a meaningful way through animations, fun facts, and videos. Apart from the technology related outcomes, our team has also been able to foster a good relationship with our client that was built through establishing trust and a shared understanding. Through trusting in our client and communicating effectively with them, we were able to create a safespace in our meetings where everyone felt comfortable expressing his/her opinions. Additionally, there were many process outcomes that resulted from the project but one that we found great value in was being able to reference our meeting minutes, where notes on our discussion with our client helped influence our decision-making.

Project Deliverables

The project deliverables include access to the final dashboard and git repository, as well as the final report. In the appendix of the report we have included our user stories, wireframes, user testing sessions, and meeting minutes. There were a lot of factors that influenced our decision-making and therefore found it important to include not only the final product but also items like the notes on the discussions we had with our client.

Recommendations

Moving forward, our team recommends Phipps to encourage staff to utilize the Phipps' dropbox to store and access relevant information. Different employees may be researching similar issues and being able to draw from their peers' work may prove to be beneficial. In regards to the actual product, our team recommends Phipps to continue to deploy the dashboard through Heroku since there is abundant documentation for it. We also recommend that the staff keep building widgets for the dashboard in order to continue to include targeted and relevant information.

Student Development Team

Justin Chang worked on data analysis. He is a third-year student majoring in Information Systems and Statistics and Machine Learning. Over the summer he will be interning as a data scientist at First Data.

Graciela Garcia served as the project manager. She is a third-year student majoring in Information Systems with minors in Business Administration and Innovation and Entrepreneurship. This summer, she will be interning at Apple in their IS&T program.

Frank Liao was the lead programmer. He is a third-year student majoring in Information Systems with a minor in Human Computer Interaction. He will be interning at Squarespace over the summer.