Improving the Food Bank Information System for the Hispanic Community Simon Yang, Frankie Murcia, Dr. Ali Jalooli

CALSTATE

California State University Dominguez Hills



Abstract

This project aims to improve food bank information systems for the Hispanic community by creating a low-spec website. Many existing sites lack language support and are inaccessible on older devices. Research shows that 80% of Hispanics use mobile devices for internet access. Food insecurity is a pressing concern among this population. The project plans to gather community insights and employ the concept of plasticity to adapt features based on user experiences. The focus is on cultural and food clarity while avoiding redundancy in language support and location tools. This project serves as a pioneering effort to address food insecurity among Hispanics and offers insights for future research.

Introduction

In a world increasingly interconnected by digital information systems, the issue of food insecurity among Hispanic communities remains a pressing concern. Current food bank websites often fall short in catering to the specific needs of this demographic, lacking language support and accessibility on older devices. To bridge this gap, our project aims to investigate a novel approach — a low-spec website designed to enhance usability for Hispanic families, ensuring they can access vital food-security services The Department of Agriculture reported that there were 34 million individuals that struggled maintaining their supply of food to sustain their Additionally, underrepresented lifestyles. communities such as the Hispanics in the urban areas, struggle with using food bank sites to access foods. According to "Hispanics and mobile access to internet, data shows that 80% of Latino/Hispanics use a mobile device to access the internet" [1]. Also, in 2020, food insecurity among the Hispanic population was 19%, and Latinos were 2.5 times more likely to experience food insecurity than other individuals [2]. As a result, we are working on ways to analyze the flaws of existing systems and create new methods to improve said systems to be universally used and is accessible for all individuals

Methods/Approach

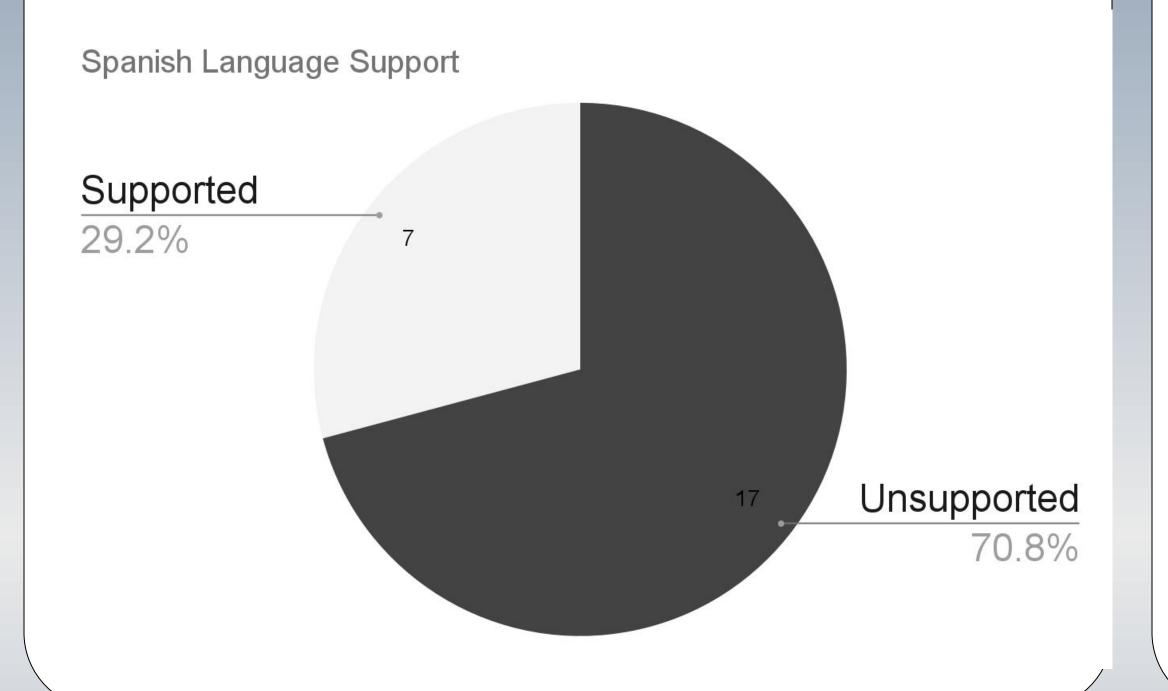
In the initial phase of our project, we conducted an extensive review of various food bank websites to evaluate their features and identify shortcomings. However, we recognize the importance of incorporating user perspectives to create a more tailored and effective solution. To refine our approach, we will:

- User-Centric Surveys: We plan to conduct user-centric surveys to gather insights directly from the Hispanic community. These surveys will help us understand their experiences with food banks, the challenges they face, and their preferences in accessing information related to food security.
- Community Feedback Integration: User feedback will serve as a pivotal element in shaping our low-spec website's design and functionality. By incorporating their suggestions and preferences, we ensure that our solution caters to the specific needs of the community.
- Cultural Relevance Assessment: Through surveys, we will assess the cultural aspects that should be integrated into the website. This will help us avoid potential cultural insensitivities and ensure that our platform resonates with the target audience.
- Accessibility Insights: We will seek information from users with varying levels of technical resources, including older devices and slower internet connections. This will guide the development of "Potato Mode" and other features to enhance accessibility [3].
- Geographical Variation: By conducting surveys in different cities and states, we can capture the diverse concerns and requirements of Hispanic communities nationwide, adapting our solution to local contexts.

By incorporating user perspectives through surveys, we aim to create a more user-friendly, culturally relevant, and accessible low-spec website for food banks. This iterative approach ensures that our project is grounded in the actual needs and experiences of the community, making it a more effective and impactful solution to address food insecurity among the Hispanic population.

Results

- Over ½ of sites did not have language support for Spanish
- Desktop and mobile sites are bloated with information, which are deterrents for the community.



Future Work

Moving forward, our project will transition into the active development phase, where we will create a comprehensive framework designed to serve as a blueprint for the augmentation of food bank websites. This framework will be instrumental in shaping a low-spec website that is culturally sensitive, accessible, and user-centric. Here is an outline of the future work ahead:

- Community-Centric Surveys: To ensure our solution is in alignment with the unique needs and preferences of the Hispanic community, we will conduct targeted surveys.
- User-Driven Framework: With the survey data in hand, we will develop a user-driven framework that guides the development of our low-spec website. ces of the community, ensuring that our solution resonates with its intended audience.

Conclusion

Through our extensive literature review and a meticulous examination of existing food pantry websites, we have unveiled critical insights that shed light on the challenges and opportunities surrounding food security within Hispanic communities. These discoveries form the cornerstone for our mission to create a more accessible and user-centric solution.

Our review underscores the pressing need for an inclusive, culturally sensitive, and accessible approach to address food insecurity. By scrutinizing existing food bank websites, we have pinpointed areas that require immediate attention, such as language support and accessibility on diverse devices.

These findings lay the groundwork for the next phase of our project, which is centered around the design and development of a low-spec website that caters to the unique needs of the Hispanic community.

References

[1] Anna Brown, Gustavo Lopez, Mark Hugo Lopez. (2016) Hispanics and mobile access to the internet

https://www.pewresearch.org/hispanic/2016/07/20/3-hispanics-and-mobile-access-to-the-internet/. Accessed on 8/29/2022

[2]Feeding america.(2021) Latino communities are facing greater economic hardship during the pandemic and are more vulnerable to hunger

]https://www.feedingamerica.org/hunger-in-america/latino-hunger-fact s#:~:text=Due%20to%20the%20coronavirus%20pandemic,insecure%2 0households%20as%20white%20children. Accessed on 8/29/2022 [3]Mahdi H. Miraz, Maaruf Ali, Peter S. Excell,(2021). Adaptive user

[3] Mahdi H. Miraz, Maaruf Ali, Peter S. Excell, (2021). Adaptive use interfaces and universal usability through plasticity of user interface design, Computer Science Review.

https://doi.org/10.1016/j.cosrev.2021.100363. Accessed on 8/29/2022

Acknowledgement

This work is supported by NSF CNS-2131291. However, any opinion, findings, conclusions, or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the NSF.