REVOLUTIONIZING FOOD DELIVERY SERVICES WITH HOME COOKED MEALS

ONLINE FOODE DELIVERY AND SMALL LOCAL RESTAURANTS

An Undergraduate Thesis Portfolio
Presented to the Faculty of the
School of Engineering and Applied Science
In Partial Fulfillment of the Requirements for the Degree
Bachelor of Science in Computer Science

By

Guillermo Saavedra-Diaz

April 28, 2020

SOCIOTECHNICAL SYNTHESIS

The technical project focuses on developing a web application, HomeEats, to sell home-prepared meals and reduce the amount of food waste created in local communities. Customers will have access to healthier food options and cooks will be able to generate an extra income. The STS research investigates the impact on small local restaurants when incorporating third-party online food ordering platforms. The STS research is tightly coupled with the technical project. The technical project and online food delivery platforms both have very similar functionality and processes.

The technical project focuses just on home-prepared meals as opposed to other online ordering platforms that include restaurants and grocery stores. Even though these both are in different markets, building the technical project will enable a closer investigation on how these online food ordering platforms generally operate due to the similarity of features and processes. The technical project creates a more sustainable environment by enabling users to create home-prepared meals using the food products that would otherwise end up in the trash. Not only will the technical project help the environment but users with a passion for cooking will be able to generate an extra income.

A group of five members were in charge of completing the technical project during a year-long capstone class. The end result was a well-polished product that contained a complete set of features that fulfill its purpose. The technical project was made open to the public and accessible to anyone to use on April 3rd 2020.

The STS research focuses on the ways that online food ordering platforms are affecting small local restaurants. In particular, the research analyzes the impact on restaurant's profits and the way that it can prevent small restaurant owners from staying in business. The large online demand on small local restaurants has also forced some restaurant owners to hire extra employees just to keep track of the online orders. This is not beneficial when online orders create less profit and more overhead costs compared to in-person customers.

When conducting the research, it was evident that online food ordering platforms were hindering the overall profit a restaurant was able to generate. The main cause of this was due to the online food ordering platforms charging restaurants a high costing fee on every order. This decreases the amount of profit a restaurant makes on every order. This is in contrast to in-person customers where restaurants make a much larger profit by avoiding the service fees. Small local restaurants also do not have the capacity to meet a large online demand and some restaurant owners were forced to hire extra employees to keep track of their online orders.

Developing the technical project shed some light into how these online food ordering platforms function and the STS research dove deep to uncover the impact on small local restaurants from integrating online food delivery platforms into their core businesses. A few issues came to the surface but the main one was the negative impact on profits.

TABLE OF CONTENTS