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CS 361

Project Proposal

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Food Waste Prevention

The main goal of this project is to lower the amount of people that struggle with hunger by getting them food that is still edible but is traditionally thrown away. In America about 40 million people struggle to get enough healthy food everyday (Dosomething.org) while we are also throwing away up to 30% of our food supply (rdtonline.com). Through better understanding of where and why food is thrown away we can reduce the amount that is wasted and find the still edible food that could be used to assist people who struggle with hunger.

The first step is to track data of food from its production on farms and other sources all the way to its final location in homes, restaurants and other places. This will include where and how it is shipped and stored, where in the line is food found to be unsuitable and thrown away, and what stages of the trip have the most loss.

The information collected on the production and transfer of food can be used to find regional, seasonal, and annual pattern in food necessity. By understanding this we can help to reduce over production and or over shipments to places that won't use the food. We can also use this information on wasted to food to find local solutions that might be able to use some of that food to assist people who go hungry.

With good information on where food is generally wasted, we can then determine how much of this food is still edible. The project will include ways for food banks and similar organizations to gain access to this edible food so that the total amount of wasted food can be reduced.

How the project works

Most modern sources of food production track their harvests, crops, shipments, ect electronically. This project should be able to pull this data from whatever means is already being used to track it and put it in one place. There should also be a website that allows for manual input of this information for cases when it is not already done electronically. The project should allow users to find out how much of different types of food are produced in an area, where that food goes, how it is shipped, how much of it is lost along the way, where it is lost, and why it is lost. The project should be able to generate some sort of visual representation of the data based on region, food type, year, season, and should be able to accommodate custom setting for these representations. The project should also have a website that food banks and other similar organizations can use to get access to food that is edible but set to be thrown away.

Another important part of this project is a method to determine how much of food being thrown away at any step is still usable. Once the edible food is identified the project should have a way to help get it to organizations that can get the food to people in need.

1- <https://www.dosomething.org/us/facts/11-facts-about-hunger-us#fn1>

2- <https://solutions.rdonline.com/blog/2018-update-on-food-waste>