

Amber Peter

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Project Term Paper

How to Make a Local Burger

It is said that an average American meal travels 1,300 miles from the source to the table and it is also said that 1 in 4 Americans visits a McDonalds each and everyday¹. It's statistics like this that make some people nervous – not only due to the fact that there is a much higher risk of healthy issues now because of fast food – but also because the extent on how much Americans are eating and exhausting the food supply on this country (if not the world). In a world where there are over 31,000 McDonalds restaurants² over the span of 118 countries, a question must be asked, could McDonalds (and other fast food chains) be self-sustaining by *in-sourcing* their food instead of outsourcing to other states and/or countries? In other words, could it be possible for all the McDonalds restaurants within a state like Washington get all their ingredients to make anything on the menu that was either grown or raised within Washington State? That's what I went to find out.

I knew this idea would become a complicated process so the first thing to do was to draft a workflow chart where I would predict what necessary tools and steps need to take in order

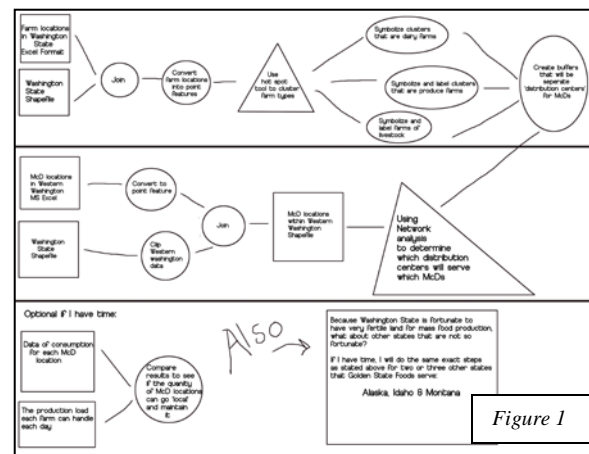


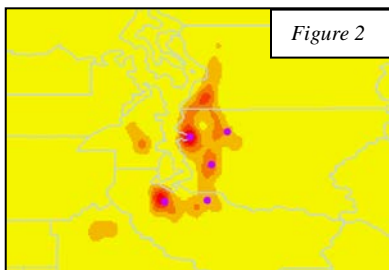
Figure 1

¹ *Super Size Me*, Morgan Spurlock, 2004

² <http://www.princeton.edu/~ina/infographics/starbucks.html>

to complete this project as smooth as possible. As told by figure 1., what I first thought was necessary to do was to acquire a Washington base map shapefile, and all the locations of farms and McDonalds within Washington state. The method for locating all the farms and McDonalds in Washington State seemed simple enough; type in either McDonalds or farms in Google maps and copy all the addresses that pop up. However, for the farms this process proved to be a little more difficult. I had to differentiate large farms to small community gardens and the information I was getting through a site like Google maps could be misleading. So, with the help of many websites that were created by the farmers themselves helped me determine which farms I could use in my project. Also, a minor step I wanted to take was to organize and separate farms into three categories: Dairy farms, Produce farms and livestock.

With this step done, I failed to include the next crucial step in order to convert the locations of the farms and McDonalds into point features; I needed to geocode the addresses. Collecting road map data on every single county in the state and joined them



all together and then used that information to create a geodatabase to geocode all the addresses I collected on farms and McDonalds. The process took considerably longer than I would have thought but in the end I geocoded nearly 200

McDonalds locations, 88 livestock farms, 81 produce farms and 33 dairy farms. With all these addresses located, they become point features on the map where I can then use a hotspot tool to find the clusters of all McDonalds where I can determine which areas would have the most 'distribution centers'.

After the hotspot analysis, I used that information to create five points in Western Washington that would represent my distribution centers followed by a network analysis of each of the dairy, produce and livestock farms to find out which farms would be matched to which distribution centers. And with the help of buffers, it made the process that much easier and clearer.

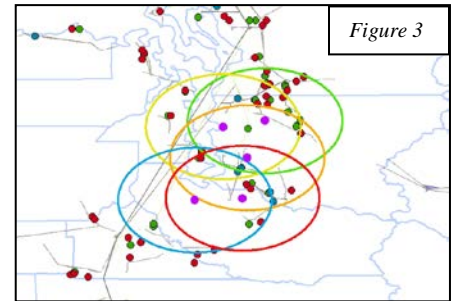


Figure 3

Later into the project, the tools and steps needed strayed away from the original workflow like not being able to do additional research on other states like Montana or Alaska (who aren't as fortunate to have so much fertile soil to grow a diverse crop) as other variables so I can have comparables in my analysis. After all my steps were completed, the analysis comes into play where I look at all the maps and data created and determine which farms connect to which McDonalds and *how* to display that.

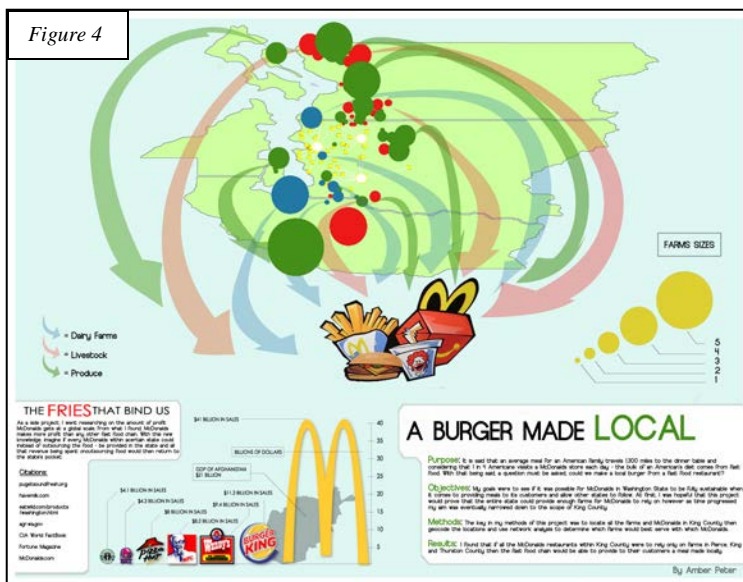


Figure 4

I had so much data and was confused on how to accurately display my findings. After much deliberation I decided to showcase only the results of Western Washington – King County – and farms that border King like Pierce and Thurston. Most of the analysis was done through Photoshop where I would transfer and digitize the results in a animated and

bright way like if it was on a placemat of a McDonalds tray. In the end, my findings and research showed that with all the McDonalds that reside in Western Washington, there would be more than enough farms to sustain McDonalds and its customers.

Even though the analysis of the map was complete, I still felt like a portion of the project analysis is still missing. Like the fact that even though I put in size of farms to comparison of consumption McDonalds does on a daily basis – what of the economy of McDonalds? If Washington farms were the only source of food for McDonald's restaurants in the state, could that revenue go back in the state's pocket? With a little investigation through the McDonalds website and some economy sources like Fortune magazine and the CIA factbook, I found that the profit of McDonalds is so large, so massive that it even casts a shadow over some countries entire worth and GDP. Knowing that McDonalds is constantly outsourcing its food to other states or countries - imagine if all that revenue that would have been spent outsourcing the food would remain within the state and be put in the pockets of Washington farmers.

Citations:

<http://slowfoodseattle.wordpress.com/>

A website that blogs and updates daily about local farming and agriculture for restaurants within the Seattle area. Such articles focus on local Slow Food events, meeting conscientious farm and artisan producers at Seattle area farmers markets, or savoring restaurant cuisine featuring the region's vibrant produce, the Puget Sound offers many wonderful and delicious opportunities to support and enjoy good, clean and fair food.

<http://slowfoodolympia.org/>

Similar to the Slow Foods of Seattle, the Slow Food Olympia branch covers the southern Puget Sound region.

<http://www.chicagofoodpolicy.org/Urban%20Agriculture%20in%20Seattle%20Policy%20and%20Barriers.pdf>

Policy on urban growing within developed regions of Western Washington and within city limits like Seattle. This will help my research and project because this article has lots of information regarding the rules of farming and regulations on production and what farms are considered and approved to serve it's community.

<http://www.urbanfarmhub.org/organizations/>

Helps my research by giving me a list of farms, urban agriculture organizations and credited places to purchase crops, meats and dairy that are local. Also gives me info about places that use the farms for their own benefit and articles of support groups that have many ideas of how to develop local eateries and products (like a local burger).

<http://www.havemilk.com/>

Information regarding the location of every approved dairy farm within Washington state. Also, I know how I should avoid the issue of pricing and cost of foods but this site also gives me information regarding how the associate determines pricing for the farmers dairy products.

<http://www.eatwild.com/products/washington.html>

Location and information regarding grass-fed livestock farms within Washington state. All of the farms listed are FDA approved and organic that provides all kinds of meats to butchers, farmers markets and grocery stores. Each farm has their own bio, location, email(s) of the farmers and the farm's own website.

<http://agr.wa.gov/>

If I want to do a project regarding food, WSDA is one of the places I have to cite since it's the main government ran department to regulate all things food, farming, dairy, meats and crops. List all the farms, how can a farm be licensed and the regulations to maintain the farm.

<http://www.goldenstatefoods.com/>

Golden State Foods are one of the main food vendors that supply anything and everything the fast food chain McDonalds might need to keep up operations and serve their customers. I can acquire the current location of the farms and data of how much customers consume at a certain McDonalds location each day, week, month and year.

<http://www.smithbrothersfarms.com/products.php>

One of the main dairy farmers within Washington state.

<http://www.nwdairy.coop/>

Darigold dairy farmers and also run the Northwest Dairy association.

<http://www.pickyourown.org/WA.htm>

An interactive website that list many farmers within Washington state.

<http://www.pugetsoundfresh.org/>

<http://www.princeton.edu/~ina/infographics/starbucks.html>

CIA World Factbook

Fortune Magazine

An assortment of articles for TGIS 415

Dr. Mat Kelley

Fellow classmates of TGIS 414/415