

MA 386 - Statistical Programming

Portfolio: Dynamic Graphics

Background:

Local stores with ambitions of becoming an empire will at some point need to consider growth strategies. Walmart, for example, began expanding locally from their first location. It was only after several years that the company began planting stores in major cities throughout the country (see the flowing data visualization here). Dynamic visualizations can be very helpful in characterizing a spatial-temporal trend (growth over both location and time), such as the graphic referenced above from “Flowing Data.” In this portfolio, you are charged with constructing a dynamic graphic of your design to help explain the growth of a particular company.

Winter (his real name) maintains a website known as <http://www.starbucks everywhere.net/>. As stated on the website, Winter has made it his personal mission to visit every Starbucks location in the world (way too much time on his hands apparently). Not only has Winter documented his progress, he has collected data on the location and opening date of thousands of stores across the country as part of his quest. And, he has made this data available on his website: <http://www.starbucks everywhere.net/NewStores.htm>. Note that **there is a link at the bottom of the site to older store locations**.

Assignment:

Using the data provided on Winter’s page, construct a dynamic graphic (interactive, animation, or both) which helps to visualize the growth of Starbucks. Using your graphic, summarize the growth strategy of the company. Your description might include, but not be limited to, topics such as

- Rate of expansion.
- Large cities vs. urban areas.
- Expand outward from central location or plant in key cities.

Tips:

Here are some additional tips to keep in mind:

- The data is stored in a simple html table, which means it can be easily scraped using `html_table()` in the `rvest` package.

- The first store to open was several years before the second. You may want to consider an appropriate timing step if you construct an animation.
- There is a `geocode()` function within the `ggmap` package which can be useful when constructing maps.