Heat Map Project

Audience: The audience for this project is people who use Twitter, and more specifically, people who want to know more about Twitter users. This program will allow users to examine their own tweeting habits and also see how other users look in this visualization.

Motivation: The motivation for this project is that I don’t like not being able to see what my tweeting habits are, and also not being able to see what kind of users other people are without looking at tons and tons of posts. My program is designed to solve this by showing habits of Twitter users over a month period, and it is possible to do even more than that.

Related work: There are many related works available on Twitter, some of these include Twittervision, TweetDare, Twittley, TwitStat, TwitterHolic, and Twitzap. My personal inspiration comes from one of Tufte’s visualizations. He did a cyclogram graph of the sun rising and setting in space, and this constant shifting made me wonder if patterns could be recognized in similar fashion. I figured that some people would have posts at almost all times, while others would have very specific patterns that are almost always followed.

The inspiration for this project.
Here is what I envisioned for my project. I didn’t love the colors but I liked the gradient changing between more posts and less posts. Of course the graph wouldn’t look like this, but I figure there might be darker parts at the top and bottom, with very little posting between say 2 AM and 8AM when most people aren’t awake.
This is my first working implementation of the map. As you can see, I changed the colors, but determined that it might be too hard to see, and also decided not to deal with solely the opaqueness, but also added default color so that you could tell between zero posts and at least one post. I also added a legend since it was very confusing to see what was going on and where the older posts were compared to the more recent posts.
This is the final iteration of the program. You can see that I have added a time factor, so we know where the most recent posts are, and the time of the post is labeled on the left side of the graph. I also added a grid so that it was easier to read. The graph is made to be read from right to left, from oldest to most recent. As you can tell from my graph, I very rarely tweet, and when I do, I even more rarely tweet twice in the same hour. However, this graph shows that I do end up tweeting about twice a week, and always after noon, and before midnight. I think that this is pretty significant, and really does a good job of showing my tweeting habits.
I decided to also run the simulation on some famous celebrities to see how someone who tweets a lot would look in this simulation. Ryan Seacrest is the first person I ran it on, and his visualization shows some interesting things. As you can see, Seacrest rarely tweets between midnight and 8 AM, and almost always tweets at least once a day, but rarely more a few in an hour. This makes sense because Ryan Seacrest is a celebrity news anchor basically, and also runs a show which airs a few nights a week, American Idol. This means people who follow him will be interested in other famous peoples lives and also in updates about his show. For example, he updates with news about the latest American Idol news, and important things from the news, especially Hollywood celebrity news. An interesting point to look at is the dark point three columns in from the right, which corresponds to three days ago. This is the date when a facility collapsed in Dallas and 12 people were hospitalized, so Seacrest kept tweeting the latest updates about how many were hurt and saved.
Shaquille O’Neal is the next person I ran it on, and his visualization also shows some interesting things. As you can see, Shaq tweets a lot, but rarely between 1AM and 8 AM, and almost always tweets in spurts. Once in a while he will get on a roll and post ten plus messages in a single hour, which is unheard of for most Tweeters, once even getting up to a range of 22 in a single hour. It appears that he was traveling, either on a plane, or getting driven somewhere when he decided that he was bored and would reply to lots of people and start some conversations with other Tweeters. Shaq does not need to let people know news, so he has no obligation to post every day, and in fact sometimes seems to forget about Twitter and doesn’t tweet for days at a time. People are not looking for something substantial from Shaq, but just a single one-liner, or an entertaining anecdote. He can afford to be sporadic because he is not conveying important information.