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I Pledge My Honor That I Have Abided By The Stevens Honor System

Assignment 9 Report

The goal of the program is to see the Facebook usage among the different age groups. Not only do I want to see the proportion of people among different age ranges that use the platform, but also I wanted to see how they tended to use it. I thought that a good way to identify this would be to see the differences in likes through mobile usage and website usage of Facebook. Although there may be some people who barely like anything on Facebook and instead just tend to look at posts without much interaction, I think that likes are still indicative of usage because the proportion of mobile likes to website likes can still indicate a how they access the social media, even if the total amount of likes by a user is small. The application itself will print a table to the console that represents a variety of age ranges and how many users are in each range. For each age range, it will also display the total amount of likes, amount of mobile and website likes, and percentage of mobile and website likes. It will also display 9 pie charts, 1 for showing the different proportions of users by age range, and the other 8 displaying the proportion of mobile likes to website likes for each age range.

I was interested in showing this information because I was thinking about the point of view of an advertiser potentially going through Facebook. They would want to know the age demographic, as well as what device their potential customers are using the app through. If they know that their product is marketed towards 60+ year olds and then notice that only a small

percent of that age range uses Facebook, they might look elsewhere. At the same time, a

company that wants to sell to someone in their 20s might notice the large number of users in that

age range that use Facebook, then look to see if they mostly use it through mobile or website.

From there they can make their advertisements for mobile or for the website, depending on what

they deem to be more popular. This data could be essentially for maximizing the amount of

engagement or clicks that someone who advertises gets through Facebook.

The actual analysis is mostly done through a for loop in a csv reader. I only needed to get

the ages for each user, as well as their mobile like count and website like count. From there I

would get the percentages by just dividing the respective number of users for each age group, or

likes for each category by their total. The percentages are what really tell the whole story, and by

putting them into a pie chart it can help visualize where the majority of users come from.

From the result, it appears that the majority of Facebook users are in the 18-24 age range,

and the second most number of users are in the 25-34 age range. These 2 groups alone make up

nearly half of the entire user base. There is a big drop off afterwards, with the next largest group

containing about half of what the 25-34 age range had. I thought that this was interesting because

the common stereotype nowadays about Facebook is that it is mostly used by older people, and

younger people have moved on to platforms like Twitter or Instagram. Although, since these

numbers are from 2013, and the internet landscape is always changing at a fast rate, Facebook

might have still been popular among younger people back then. Furthermore, the data shows that

mobile likes outweigh website likes in nearly every single age range, with the only exception

being the 65-74 age range. The oldest 3 age ranges have the highest proportion of desktop likes,

which could be a result of them not liking the use of phones to browse the app. Phones in 2013

were much smaller than they are today, with the flagship phone at the time being the iPhone 5s, having a screen size of only 4 inches. Older people probably find it much more comfortable to be browsing on a desktop with a much larger screen. Interestingly enough, the 13-17 age range also has a relatively higher proportion of desktop likes, which could be a result of younger people not even yet having a smartphone and only being able to use Facebook on a website, regardless of preference.

Overall, the data seems to show that younger people, typically 18-34 year olds, make up a majority of Facebook's user base. Moreover, past this age, the older the user is, the data shows that they are the less likely to even be using Facebook. Furthermore, mobile usage of the app seems to be the most popular way to browse the app for nearly every age, with the exception of the 65-74 age range. If an advertiser were to buy some ads on Facebook, they would definitely want to focus primarily on mobile ads, and they would ideally be marketing towards 18-34 year olds since they represent nearly half of all Facebook users.