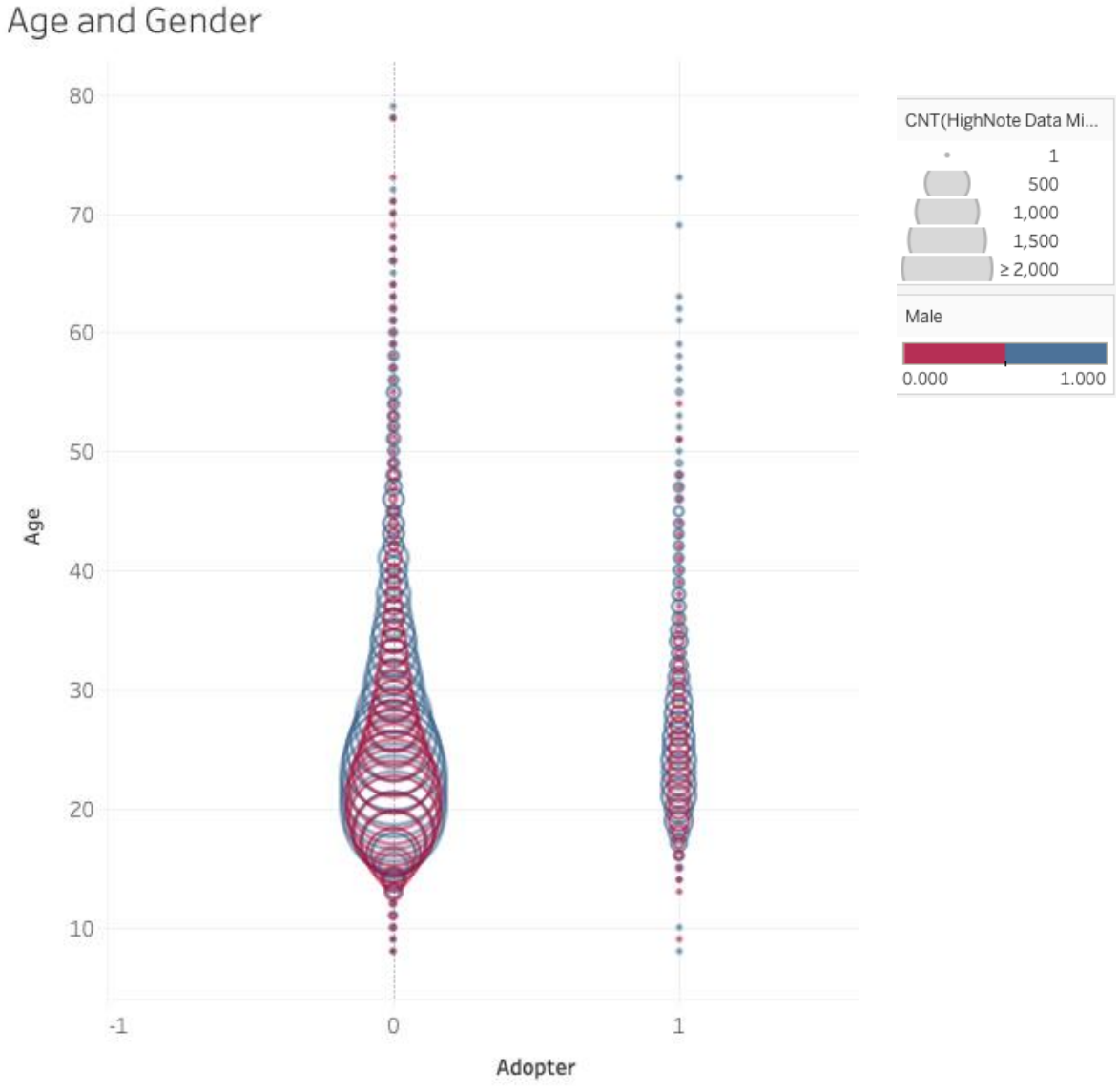
Data Visualization: Generate a set of charts to help visualize how adopters and non-adopters differ from each other in terms of (i) demographics, (ii) peer influence, and (iii) user engagement. What can you conclude from your charts?

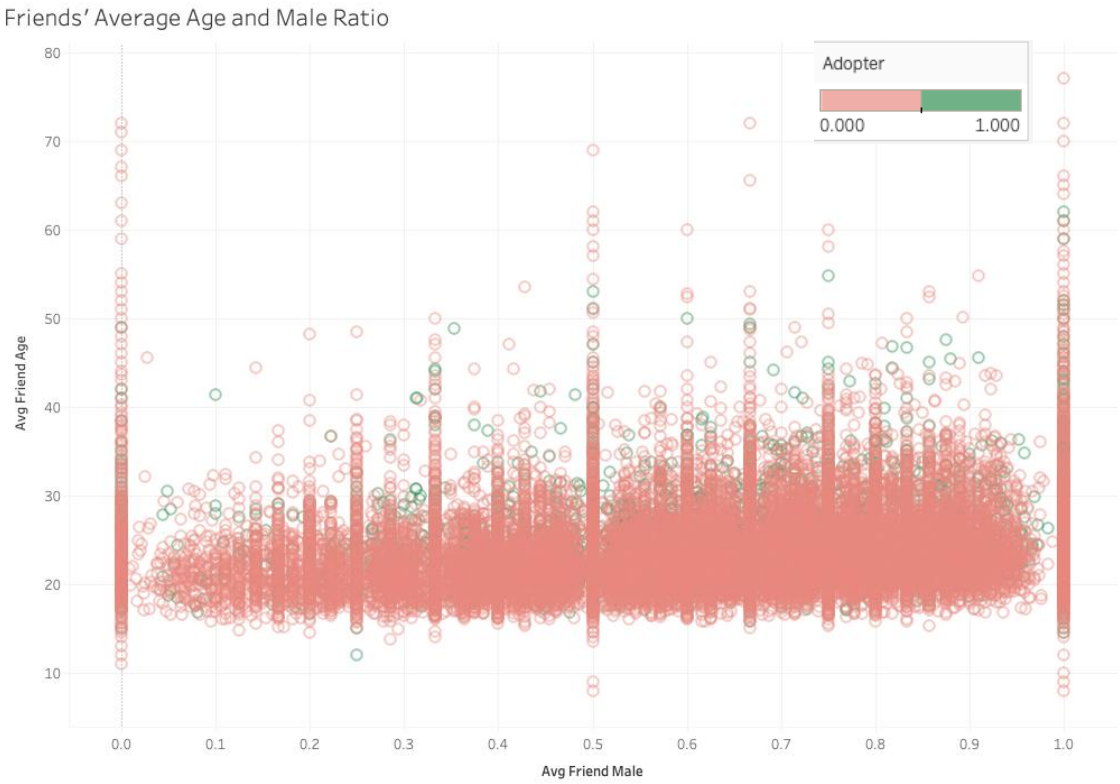
(1) Demographic

Age and adopting: The color indicates the gender, and the size of the circle indictes the number of people in that circle.

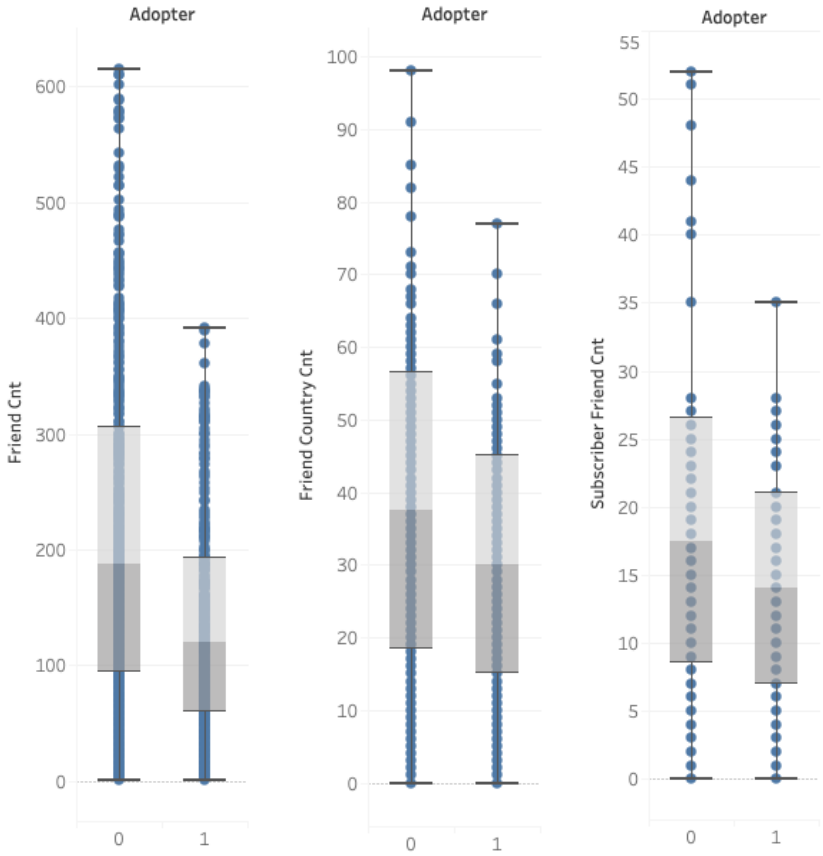
As we see, the circles on the left is significantly larger on the left, indicating that most people are free users, most paid users are around the age of 20-30 and there are more males than females.



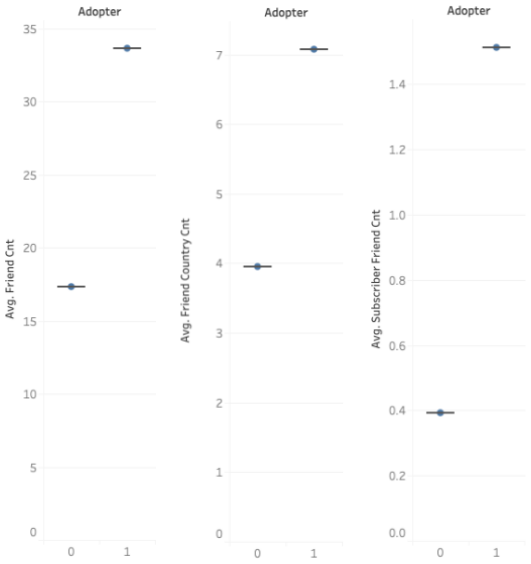
(2) Peer Influence



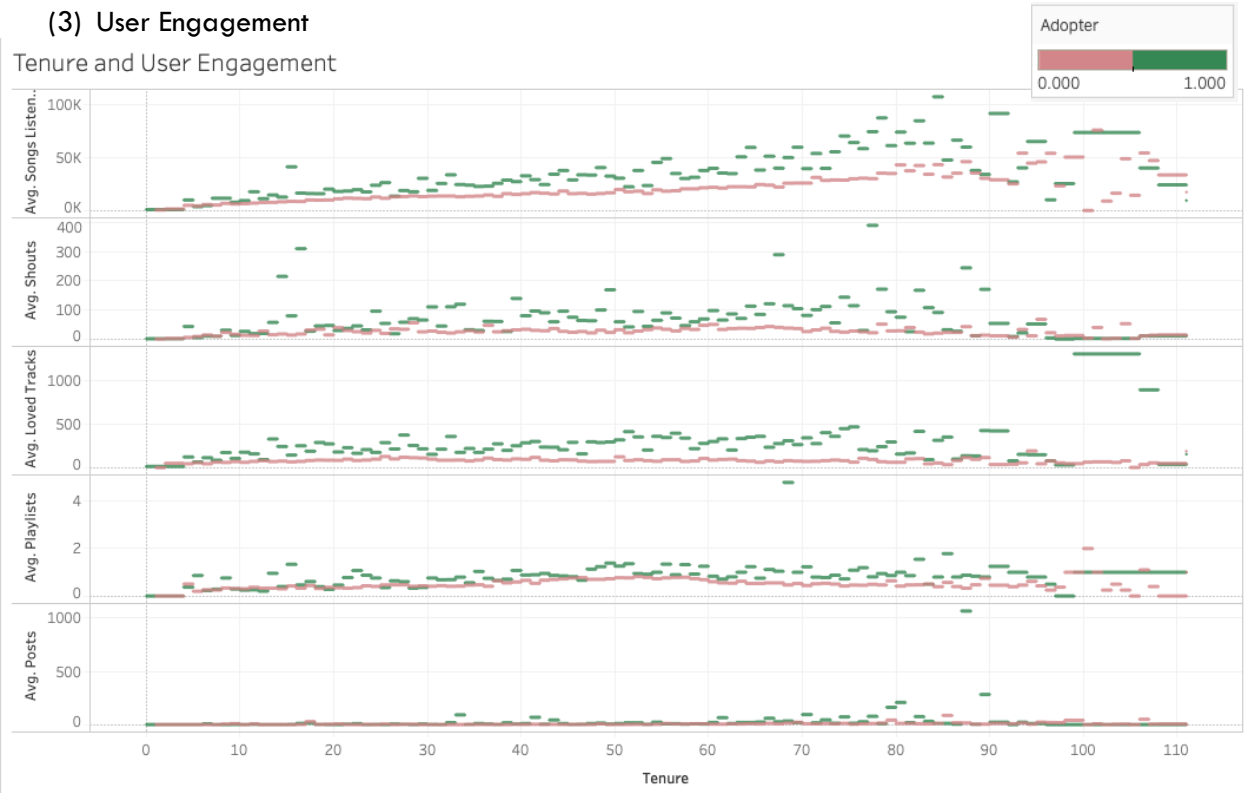
Users' friends' average age and male ratio: Each circle is a user. The color indicates whether the user is using High Note for free or paying.
From the graph we see that there are more users who have a higher ratio of male friends, most users' friends' age are around 20-30 years old. From the chart we don't see an obvious pattern on whether friends' age and gender play a role in affecting the users' willingness to pay.

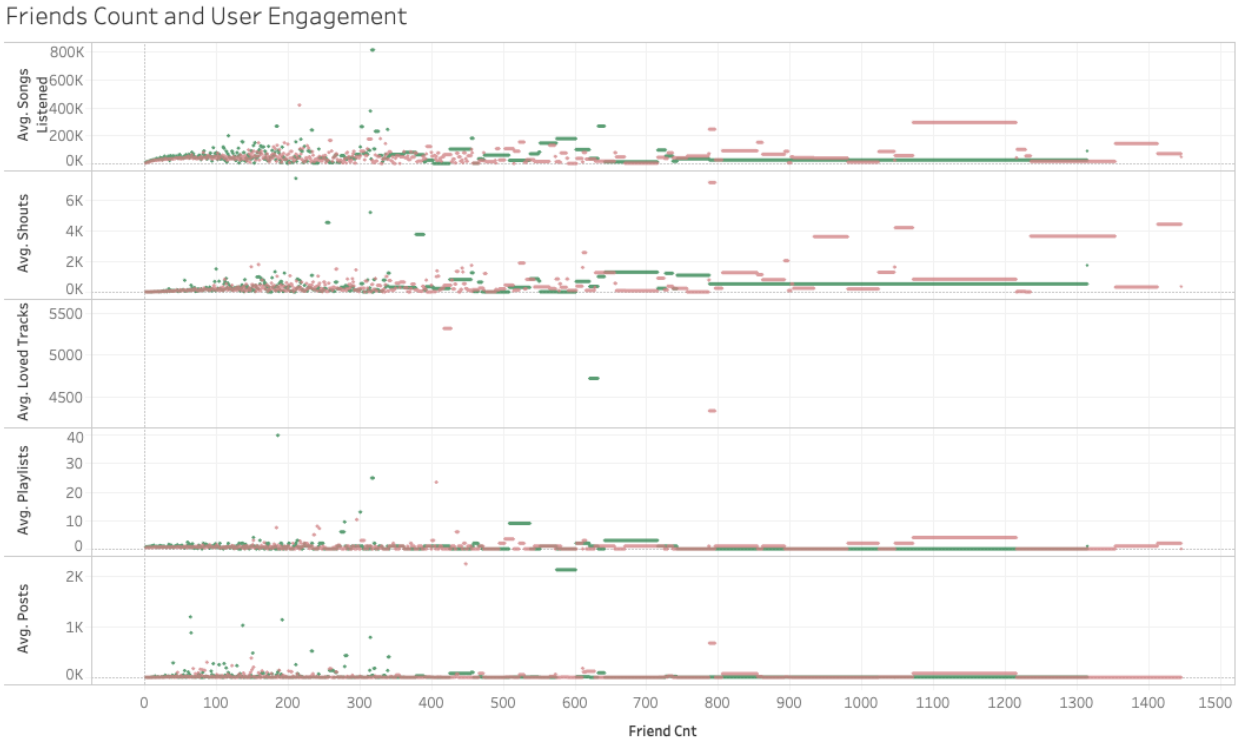


A comparison between adopters and non- adopters' friends. In the charts above, I have removed the outliers from the boxblot. All the number of friends, number of countries friends are from and number of friends that are subscribers in the non-adopter group is higher. Yet if we look at the average, adopters' have them higher.



(3) User Engagement





In the above two charts, we are comparing user engagement, ordering from light engagement to deeper engagement, average number of songs listened to, average shouts, average loved songs, average playlists created, average posts. Then we compare those with the user's tenure and friend count. We see that with tenure, the split is obvious. Within one year, people who subscribe will use the platform way more than non-subscribers. As for the friend count group, the split is less obvious. There's

a slight positive correlation in average songs listened and average posts when the number of friends is below 300. It might be because that people with around 300 friends are interacting with their close circle, comparing to those with thousands of friends, users don't really know their "friends".