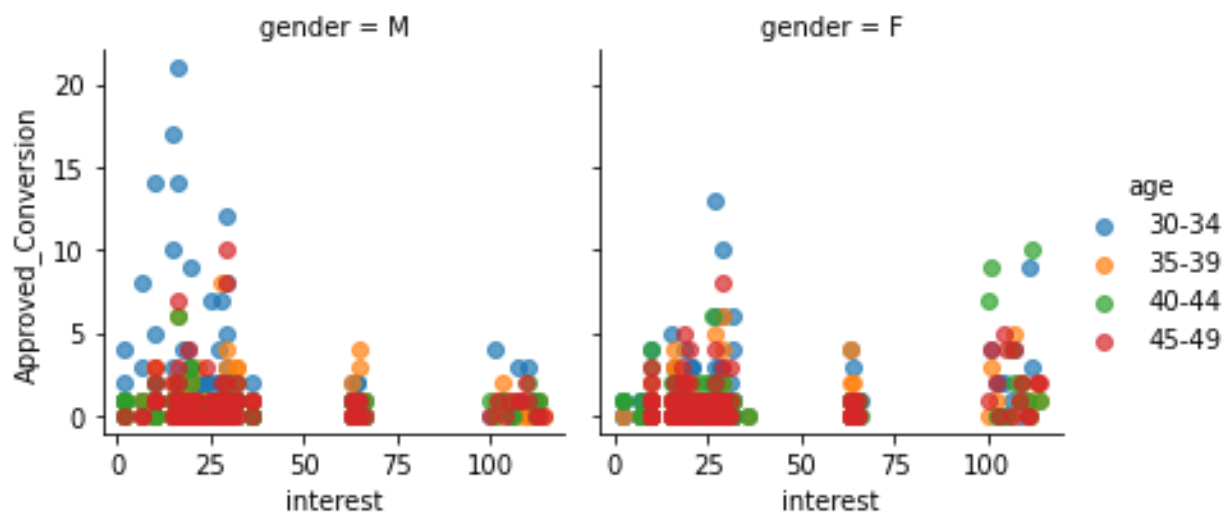


SOCIAL MEDIA CAMPAIGN ANALYSIS

The objective of this analysis is to optimize the ad for maximum conversion. A database from kaggle is used here (https://www.kaggle.com/loveall/clicks-conversion-tracking?select=KAG_conversion_data.csv).

The data here is pretty straight forward with around 11 columns and the dependent columns being clicks, conversion and approved conversion.

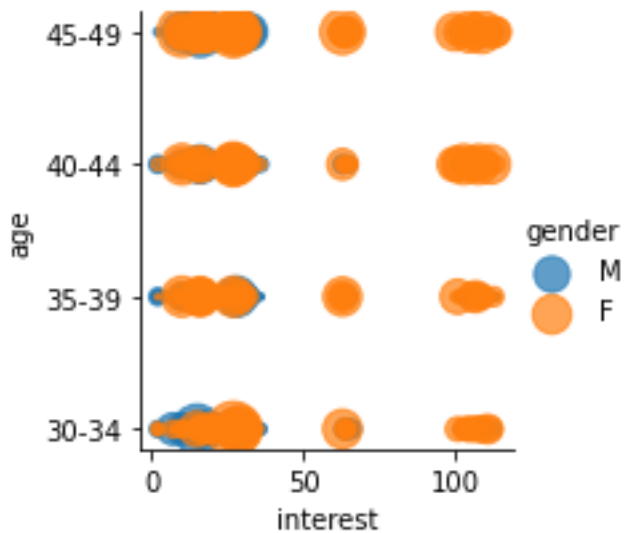
The main objective here is to maximize the 3 dependent columns using the analysis we can deduce from the remaining columns.



Here we see more approved conversion from the **age 30-34** and the interest is very high at **0-25**

Interest.

So using this graph we can say that the ad works best at the 30-34 age demographic. Even though we get a lot of clicks from the very elderly age group, their conversion rate is pretty low and this might be due to the fact that they might give a lot of accidental clicks.

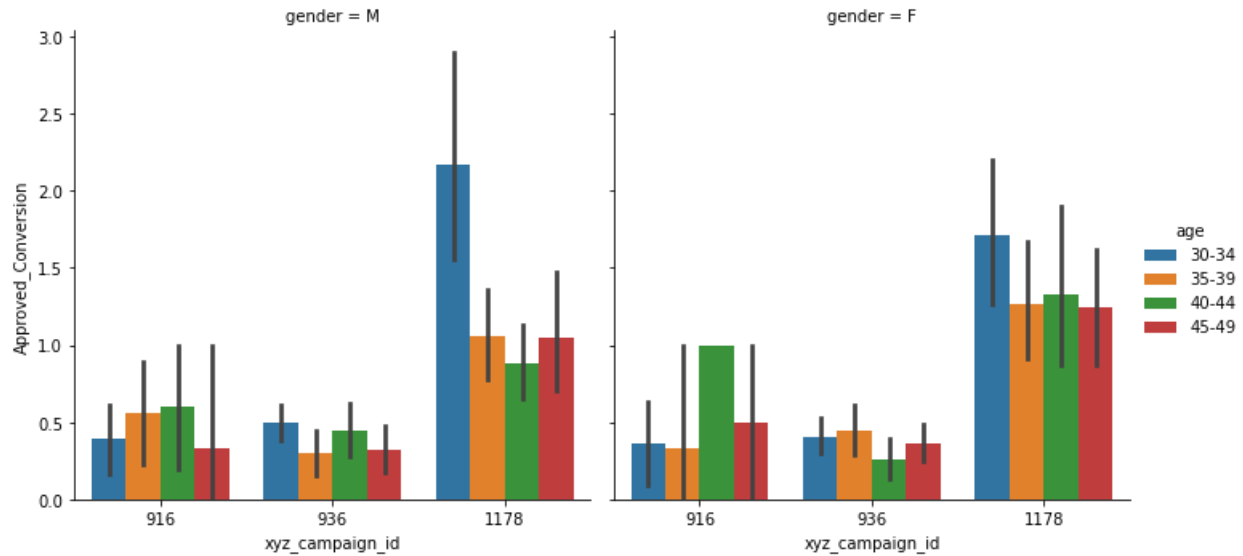


Here we see a **female dominance** from in all age groups with respect to the **interest**.

So using the last 2 graphs we could say that **females between the age 30-34** are the best demographic to target to get the best out of the ads. Let's do some further checking to check the probability with this.

As have found out earlier that women are more interested and seem like better targets than men but this might just come down to the fact that women were targeted more than men. So let us look into that now,

The number of male impressions is 98571981 and that of female is 114862847. This tells us that the ads were targeted more towards female generally.



Using this graph we can conclude that we get the best results from the **males** with ages between **30-34**.

And it is also clear that the ad 1178 performed the best among all the ads.

Conclusion

From the above analysis it is clear that the age group between **30-34** must be targeted heavily. They are the ones who have responded the most with terms of actual profit for the company. **Males at 30-34** were the most useful followed by **females 30-34**.

While there were a lot clicks from the very elderly age group (45-49) , they seem like they were mostly accidental as they have very low conversion rates. This age group does not seem beneficial as they do have low approved conversion rates.

We can overall conclude by saying that the males at ages 30-34 are the best targets but targeting both the genders of the same age will prove to be the most beneficial. The best ad campaign is the **1178**. In case if we need to try new ad, using **reinforcement learning algorithms** such as Thomson sampling will prove to be very useful in this case.

Done By

Vigneswaran S (Coded in kaggle(<https://www.kaggle.com/vishwaasekar/notebook03f4b2babe/edit>))