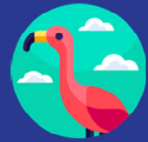


How can we increase revenue from Catch the Pink Flamingo?

by Simon Cox



Problem Statement

How can we use the following data sets to understand options for increasing revenue from game players?



Find user and team clusters and their characteristics



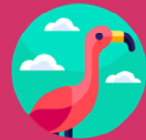
Define ad targeting strategies for different clusters



Increase the user experience



Increase revenue!



Catch the Pink Flamingo is an online game played by all sorts of users. The goal is to Catch as many Pink Flamingo's as possible in ever changing maps by clicking on the right flamingo.

The Catch the Pink Flamingo data sets contain all the data on the users, their behaviour (clicks), the teams, and in-game purchases. By using Data Science to combine and analyse these data sets we can find user clusters and patterns. These findings can be used to refine the current ad targeting strategy and user experience. By targeting the right users with the right ads, revenue will increase. Similarly, by increasing the user experience users are more likely to purchases game items and recommend the game to other people. Both of which have a positive influence on the game revenue.

Data Exploration Overview



Item 2	1 st most purchased	→	low revenue
Item 5	2 nd most purchased	→	highest revenue
Item 0	3 rd most purchased	→	lowest revenue



Only 6 unique items to be purchased
Create new items like item 0, 2, and 5 and sell for different price



It was found that the most sold game items are item 0, 2, and 5. Item 2 was the most sold item and item 5, by far, yielded the most revenue. Furthermore, there are only six unique items to be purchased. Developing new items similar to item 0, 2 and 5 and offering them for a different prices could increase revenue and give insight in why those items are bought. For example, perhaps item 5 is bought because it makes the game much easier and item 0 is only bought because it is the cheapest. But perhaps items 0 is sold to cheap and people only but item 5 because they think it must be helpful given its price.

What have we learned from classification?



High Rollers: the big spenders of the game

97% of iPhone users

37% of Mac users

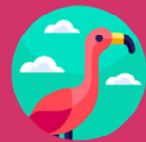


Penny Pinchers: only buying cheap items

97% of Linux

88% of Windows

87% of Android



The classification analysis showed that the platform type is the best estimator for predicting if someone is a “High Roller” or “Penny Pincher”, i.e. if someone is willing to spend money or not. Almost all iPhone users are High Rollers and almost all Windows, Linux and Android users are Penny Pinchers. Although most Mac users are also Penny Pinchers, there is a substantial part of the Mac users (almost 40%) that are High Rollers. Therefore, targeting apple users (iPhone and Mac) with expensive items is more likely to result in more in-game purchases, while the opposite holds for Linux, Windows and Android users.

Another point that follows from the classification analysis is that this game is mostly played on iPhone and Android. Therefore, investing in ads for Android and iPhone will attract more users for this game. Especially, we want to attract iPhone users since they are more likely to be High Rollers.

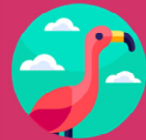
What have we learned from clustering?



Low success teams with low spending don't grow old!



Old teams with an average success rate are the big spenders



The clustering analysis showed that teams with little success and with low spending don't grow old! Why the life span of these teams stays low is not know. However, from my experience, if my success in a game is low I tend to like the game less, and I will definitely not spend much money on a game I don't like. This might be the case for this cluster.

Furthermore, the biggest spenders are old teams with an average success rate. They are the users who like the game but have an average skill level and therefore sometimes need help in the form of purchased items.

From our chat graph analysis, what further exploration should we undertake?



Find influencers and influential teams



One extra step in the graph analysis should be to find influencers and influential teams. These influencers and teams can be approached with the option to purchase items with a discount or even for free. In return they must post a chat which mentions how these items helped them and their team to get better. These chats will reach many other users and convince them to buy the same items to get better.

Recommendation



Find the weaker teams and users



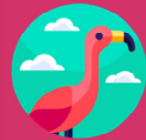
Boost their skills with discount on game items



They get better and enjoy the game more



They spend more and tell friends



Apart from some other recommendations done during this presentation, it is my believe that we should help the weaker ones. As followed from the clustering analysis, teams with a low success rate are less likely to spend money on game items. It is my believe that this is caused by the lack of skills which results in less joy when playing the game. I would suggest to identify these weaker teams and their users and target them with ads for game items with a large discount. These items will boost their skills and therefore their joy when playing. And as you may know, happy players will spend more and tell their friends about this game! Both of which is good for the game revenue, more sales and more users.

Acknowledgements (icons)

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