

Introduction

Using data from 12,000 Asana's users, we are able to explore what factors are indicative of user adoption. Like many other products, Asana's retention lies heavily in the introduction of the product. How, where, and when a new user became introduced to the product helps us explore consumer's tendencies when adopting Asana and our insights can eventually help us focus on the most effective marketing techniques to increase user adoption.

Variables

To identify which factors best predict future user adoption, I took into account the following variables indicated in the specs, as well as new metrics:

- **organization retention rate** – From the group they come from, what is the average adoption rate?
- **invited by an active user** – If they were invited by another user, is this user an adopted user?
- **Time diff** – Time difference between creation date and last login date

Initial Inspection:

Upon initial inspection, I expected the source of creation to be the most significant variable because it represented the context in which the user will be adopting Asana, which heavily influences their experience with the product. I also predict that those who opted in mailing lists would be more likely to adopt because it measures their initial interest in the product. Lastly, I predict the difference between account creation time and last login would be most significant because if people are still logging in years after the creation, they are likely an adopted user.

Results

Because the target variable is a binary variable, I ran a logistic regression to predict the probability a user will adopt Asana's product. I used logistic regression with 5-fold cross validation to calculate the feature importance of the variables in the model.

The difference in time between the time the account was created and the last login was also a significant factor in predicting adoption. Because the difference was such a strong factor, it made it hard to see which other variables could be a possible factor. Therefore, I ran another regression without difference as a variable to see which other variables could be significant.

From the list of important features, I found that the next most important predictor is the adoption rate of the organization the user is a part of. The runner-up predictors were the sources of creation. Variables that were not as significant are if the user opted in the mailing list or on the regular marketing drip.

Insights

From our research, we can see that the environment in which a user is introduced to Asana heavily affects the adoption rate. Users from organizations with higher adoption rates have higher retention rates by the nature of the product. If every group member is using Asana to coordinate tasks and projects, new users would be compelled to adopt it as well in order to communicate with their team. Also as expected, users who have last logged-in to the product many days after the first creation are likely adopted users who use the product on a regular basis.