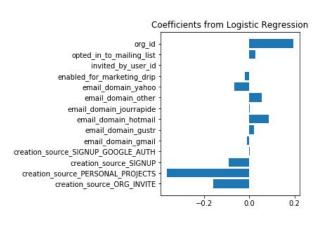
## **User Engagement Analysis**

In this particular dataset, the adopted users made up about 11.32% of the total users identified. Because the focus is on identifying which factors predict future user adoption, I decided to train both a Logistic Regression and Random Forest classifiers as they are some of the more interpretable models.

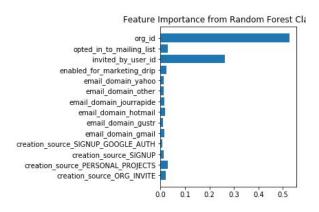


## **Logistic Regression**

The logistic regression had only one feature with a large positive coefficient: org\_id. This feature represents the organization (the group of users) that the particular user belongs to. The large positive coefficient suggests that the organization a user is associated with has a large positive impact on them adopting the product. On the other hand, those who created their account for personal projects had a large negative coefficient, suggesting that these users were much less likely to adopt the product.

## Random Forest Classifier

The random forest classifier identified two main features with a large importance: org\_id and invited\_by\_user\_id. The org\_id is the same feature that the logistic regression identified. The invited\_by\_user\_id identifies which user invited them to join (if applicable). The random forest classifier assigning high importance to these features suggests that they are also related to users who are more likely to adopt the product.



## **Summary**

Based on the logistic regression and random forest classifiers, both identified the organization id that a user belonged to have a large positive impact on the likelihood of adoption. This strongly suggests to me the product is most adoptable and consistently used by people who are part of an organization. This is also supported by the random forest classifier identifying the invited\_by\_user\_id as it is likely people within an organization would be invited by the same user id as well.