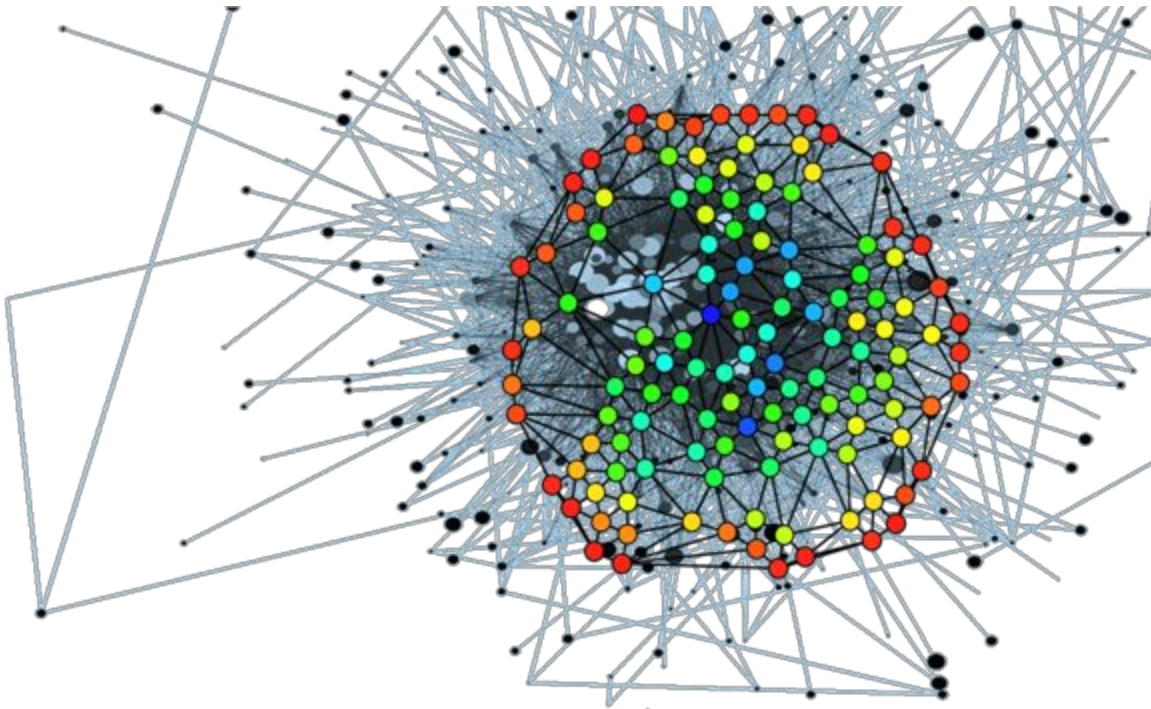# AP project report

A simple like predictor built on Java that uses linear regression to predict the likes a post present on a user's timeline would've received.

Anshuman Suri(2014021) & Satyam Kumar(2014096)
CSE201 Project

INTRODUCTION

The number of likes a post receives is obviously dependent on the content of the post.However, text analysis that yields good results is computationally complex and would, thus ,slow down the system.Hence, we chose to work with the metadata associated with a post (time of post,message tags,hashtags,location tags, number of comments,length of post) to perform the prediction.

PROCEDURE

The user logs into the webapp via the homepage, where they are prompted to login with their Facebook account.Then,they are redirected to a loading page while the trainer trains on 80% of the available data in the background.When the training is complete,the user is given an option to view the results (on the untouched 20% data) with some infographics.

The system uses the concept of machine learning (linear regression ; a very basic implementation) on both polynomial features related to the metadata to a post.To be specific,they are :

- Number of attachments with the post
- Number of comments on the post
- Whether a place tag was used by the user (binary)
- Time of the day when the post was posted (in seconds)
- Length of the post
- Number of user tags in a post
- Presence of a picture with the post (binary)
- Number of times the post was shared
- Number of message tags (hashtags) in a post
- Number of friends of the user posting the posts

RESULTS

As the current trainer doesn't analyze the content of the post, we don't expect a high/decent accuracy level for the predictions.When tested over 10-15 random users,the trainer gives an average relative error of ~30% (with a tolerance of +-5 likes).

CONCLUSION

 Though the probability of a post receiving some likes is highly dependent on the content of the post, a lot of it depends on its metadata as well : number of comments,number of tags,number of hashtags,etc.

REFERENCES

1. [JAMA library](#) (for matrix multiplications)
2. [restFB](#) (for fetching data from Facebook)