Report

How Community Feedback Shapes User Behavior

I. Summary

This report is on the paper, "How Community Feedback Shapes User Behaviour" by Justin Cheng, Cristian Danescu-Niculescu-Mizil, Jure Leskovec of Stanford University and Max Planck Institute SWS [1] . The paper discusses the effectiveness of user feedback and rating mechanisms for personalization, ranking, and content filtering on social media. It studies the complex social feedback effects on users. The paper investigates the effect of negative feedback on users on four major comment based news platforms. It is observed that:

1. Authors who received negative feedback start contributing more after the feedback event, and the posts are of even lower quality, or is perceived as such.
2. These users tend to more negatively evaluate their fellow users, leading to the spread of negative effects throughout the community.
3. Positive feedback does not increase number of posts or their quality for a given user.
4. Authors who receive no feedback are also likely to leave the platform.

II. Valuable contributions of the paper

Social Media Systems use feedback mechanisms in the hopes of providing better content, resulting in benefits to the community. By operant conditioning framework, we expect positive feedback (reward) will guide authors to produce better content at higher frequencies and negative feedback (punishment) results in these authors contributing less. But as the study shows this is not true and this is a valuable insight to be taken care while designing Social Networks on the web as Punishment and reward does not behave as expected in online platforms where these do not have repercussions. This is crucial as such feedback mechanisms are creating negative effects on the community. We observe that there are inner communities in these social networks of like-minded users. Positive feedback comes randomly but negative feedback follows a tit for tat mechanism, where the negative feedbacks are users voting on each other. This leads to bad effects for the platform. Based on these studies social networks can implement better systems that will have better impact on the network.

III. Critique of the paper

For the paper, the dataset was collected from major sites that follow a downvote, upvote system and the effects of these were only considered. But there are other feedback mechanisms that need to be considered such as feedback through videos, reviews, textual feedback, images etc. The effect of these kind of feedback might be different. Also, we need to consider the impact based on the level of the user providing the feedback. For example, a very famous user providing feedback will be different from a normal one giving the same. We also need to consider the authority level of the users. That is the impact needs to be scaled based on the provider like in Elo Rating System [2]. There are also platforms where there you can only upvote (like likes on Facebook). Also, there may be different effects of these feedbacks if the person knows the evaluator in real life. These also need to be considered.

IV. Future Works/ improvements

For future works/ improvements in this area, the problems mentioned in the critique of the paper could be studied and analyzed. Also, the dataset could be increased to include some other platforms which does not follow a post type of content like snapchat. We can also investigate the long-term effects of these feedbacks on user relationships and tackle the question of whether we create long term enemies.

V. References

[1] "How Community Feedback Shapes User Behaviour" by Justin Cheng, Cristian Danescu-Niculescu-Mizil, Jure Leskovec of Stanford University and Max Planck Institute SWS
[2] Elo Rating System – Wikipedia
[3] B.F Skinner's Operant Conditioning Theory