How Community Feedback Shapes User Behavior

Paper Summary

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SUMMARY

The paper makes an attempt at analyzing the impact of the feedback given to social media posts on the entire social media system. *Operant conditioning* framework from behavioral psychology (Skinner 1938) says that community feedback should result in improved atmosphere i.e. negatively perceived authors can improve or get discouraged whereas positively perceived authors will get encouraged. To understand it better, the paper uses Machine Learning models to analyze four online news communities. All these sites have upvote and downvote features on posts for community members. The paper concludes that community feedback does not improve the quality of discussions, as predicted by the operant conditioning theory. Instead, punished authors actually write worse in subsequent posts, while rewarded authors do not improve significantly. Moreover, punished authors are likely to later evaluate their peers negatively, percolating these undesired effects through the community. Rewarded authors too tend to downvote more often. In general-interest news sites like CNN, negative voters on a post are likely to have voted on each other. However, on special-interest websites,up-voters are likely to have voted on each other suggesting that they come from tight groups. This gave us an insight into user behavior on social behavior.

CONTRIBUTION OF THE PAPER

The paper can be seen as a study of how online communities holistically interact. It emphasizes on how most basic social media interactions impact the whole fabric of the social media system. It influences the authors, the content viewed by the viewers, their perceptions and hence, the whole user experience. Moreover, this paper can be seen as an example of how theoretical age-old frameworks can be tested using modern systems, in this case, Machine Learning models are used to

delve deeper into user psychology. It provides an opportunity to question the intuitive understanding of human minds and also challenges society to propose reasons for unexplained human behaviors.

CRITIQUE OF PAPER

There are some areas that could ask for better explanations:

a. As mentioned in the paper, for testing, two posts of similar quality were unbiasedly evaluated which still resulted in different feedback and was considered to be the premise of the whole experiment. Nevertheless, it's worth noticing that the users did find something unpleasant in one of the posts, even though their qualities were considered to be the same. This points out that some contextual / behavioral factor has not been taken into account during quality judgment.
b. The paper seems to have held operant conditioning as the sole learning mechanism. There are mentions of negative effects but the linking between operant conditioning and negative effect as two psychological mechanisms seems to be missing which otherwise could have facilitated better understanding of psyche.
c. The paper seems to lack a final explanation of the observed human mechanisms. Deeper study into learning mechanisms among humans could contribute to explaining how operant conditioning does not work as expected.

FUTURE IMPROVEMENTS

As mentioned before, this testing model could be refined by taking into consideration more contextual/behavioral factors. Moreover, since the paper tried to carry psychology along with the material observations, a better psychological explanation to the observed trait would have complimented the objective.

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