Introduction

    Reputation Systems are the systems which allows to present the actual statistics about the active participation of users and their respective badges.In Collaborative systems the major problem faced is that the reputation has to be implemented for both the community as well for the whole system.The respective problems has been solved in this paper and we will also be discussing about the implementation of reputations as a whole.

Collaborative Systems

    The grpsysad will be creator for whole platform and will also be serving the role of publisher for the first month of implementation.Those authenticated users who would be interested in the community by seeing the description can join and draft the content or can always be in multiple groups and then improve existing articles or content. The communities, thus formed by the grpsysad will then have the roles of author and publisher(only after 1 month). Those who draft the article or any content would be the group-admins for their group.The people who feel that they can contribute can join the group and make a change.The draft will be visible but when the editing or refinement of article is going on by the group people, then the article is set in private mode and is again set to public once updations are done. The particular user can be in more than one community and thus two types of reputations are maintained : 1.) Community Reputation : The reputation of user in a particular community based on the upvotes and drafting and making it to reach to the stage of publishing. 2.) System Reputation : The reputation that is cumulative of all the community reputation that user is a part of.

Grading System

    The reputation system has communities in it.These communities can only be created with the domain as "grpsysad".After the formation of these communities, the author present will draft the article.This article after been written will be voted or downvoted by only the authenticated users and not by any other user.The downvote means that the person has to then edit the article. If he is not able to edit the article except changing a,an,the and some common terms then the author gains points and the person losses its reputation.
The upvote on the other hand would help to increase the reputation of a person only if that article gets more number of upvotes than downvotes in a month based on votes of only the highly active and medium active users.
This particular article has a system of comments and questions asked on them. If a person has commented on the article then the article needs some improvement as the meaning of the article may not be obvious to audience.
The comment can further be questioned and flaged, if question seems to be valid close to half of the active and medium active users then the reputation of the person who posted the comment will decrease or else the person who puts up the question will be rewarded a minimal penalty.
In such a way of upvoting and downvoting, the basic refinement of article will be ensured.
Now comes the case of the stage where the article seems to be publishable. The publisher in the first month would be the grpsysad but then after 1 month period, the person with the highest reputation in their communities will be the publisher and thus publisher role gets splitted in the communities.
The publisher thus selected will always be active user and would tend to have more information.The publisher can judge that a particular article is clear by simply checking the number of upvotes-downvotes . If above some threshold then it is clear else it is not clear.Every version of the article is stored starting from the draft to publishing.So here we can say that we can first see that if any high reputation person has participated and what were the ratio of upvotes to downvotes.Then we can plot the graph between upvote-downvote and the number of those users which were not the part of community and their upvotes-downvotes should have an approximate more slope than of those who were in the community.Then, depending on the publisher , he will publish it.
The publisher would always be the person who will publish the article.Once published it is visible to even every autonomous user and authenticated and this article can never be changed.
As the publisher can always commit mistakes and might not release any article simply to relax , so in this fault the publisher has to be attentive as if after he declines there will again the consideration of votes from active users and medium active users and thus if satisfactory votes occurs then publisher have to bear some penalty too or the other option could be that after rejection he can suggest the changes.

The Badge system

Community Author 5 to 2000
Community Publisher 2001 onwards
Group Author 5 onwards

The badges for a user will look similar to the one given below for an author who has contributed 25 articles of which 8 were published, responded to 40 questions, which totals to a score of 735 reputation points.

Conclusion

The solution of the system reputation is that we will create the replicate copies of the user wit the same id but different communities so that ultimately the system reputation is just a matter of sum of the individual community reputation.The other implementation issues which was earlier not presented well has been presented now.

<div align="center">References</div>

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