

Trustworthiness and Analysis of Sentiment of user's Semantic Feedbacks in E-Commerce

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Abstract -While Shopping Online Buyers mostly depend on reviews from users available on various websites. Trust is an important factor in any sort of relationship. A buyer can often see both the seller and the product, verify its quality, negotiate and bargain with the seller in traditional commerce. But in the context of online shopping, there is a absence of this face to face trust assessment. Absence of trust is always considered as an hurdle in online transactions. Ratings are available online. However those ratings are not always truthful. Then, they can falsify the weight and the scores .Semantic feedbacks make more sense than single scores. Our System aims at creating trust in online communities while giving action taking results .Those results such as trust weight, scores and the results of Sentiment Analysis help users to make a decision about purchasing particular product or not from an e-commerce application. Proposed design will use both ratings and semantic feedbacks to calculate trust weight and to classify comments and users.

Keywords- *Semantic feedbacks, ratings , score.*

I. INTRODUCTION

From Reference[1] we can see that Trust is an important factor in any social relationship and especially in commerce transactions. In traditional commerce, a buyer can often see both the seller and the product, verify its quality, negotiate and bargain with the seller. Thus, it is possible for each of them to assess the trustworthiness of the other and for the buyer to be convinced about the product goodness. However in the e-commerce context, there is a lack of this kind of direct trust assessment. Although many technologies, as cryptography, electronic signatures and certificates, assist users in order to make the transaction more secure, they remain insufficient to construct a helpful and trustful reputation about a product or a service. As a result, users are not able to conceive a reputation for the product without any additional help.

In such circumstances our System works so as to boost trustworthiness[1]among a group of participants according to transaction factors and to their historic path in the web transaction. In fact, e-commerce users prefer to focus on users' opinions about a product, in order to envision their own trust and reputation experience.

[1]Our main aim is to analyse the attitude adopted by the user toward specific pre-analyzed textual feedbacks. Proposed design aims to provide the user with the possibility to like or dislike – via a specific interface- some feedbacks summarizing several former users' feedbacks in addition to fake and prefabricated feedbacks. This selection takes place after that this user gives his appreciation (a numeric value) on the product within his textual feedback. Then the user is

asked to validate his appreciation and feedback. Our approach is based on an algorithm that includes semantic feedback analysis[1][8] in order to generate most trustful reputation score for a product since feedbacks affect users' decisions more than numeric scores alone. This algorithm calculates and updates also the trust degree of the user after participation in the System.

II. SYSTEM DESIGN

User first provides its semantic feedback[1]. The feedback is stored in the ordinary database. Those feedbacks can be fabricated in order to summarize numerous users' feedbacks which are stored in the database. The generated feedbacks can also be stored in another knowledge base. So as much as we add feedbacks in the ordinary data base, we will fill the knowledge data base with pre-analyzed feedbacks. Trust Weight and Trust Score are calculated using Trust Reputation System[1][3]. Sentiment Analysis [2] is applied on user's feedbacks which generates its result. Result of Sentiment Analysis [2] combined with Trust Weight and Trust Score gives the decision whether to buy product or not.

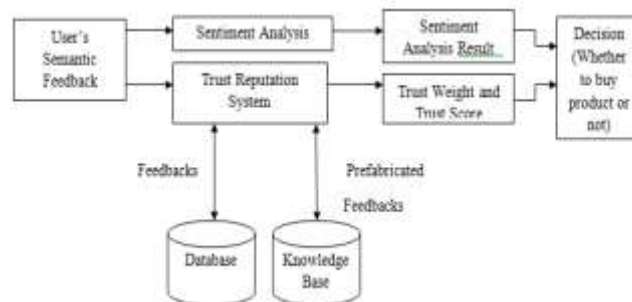


Fig-1 : System Diagram

III. PROPOSED WORK

- a) The user starts by giving an appreciation (rating) and a textual feedback about a specific product.
- b) When he clicks on submit in order to validate the given information, the user is redirected to another interface showing a message like for example: "please give us your opinion about the following feedbacks before validating the information you gave below". Using this interface it will be possible to find chosen feedbacks from the database from different types.
- c) Those feedbacks can be fabricated in order to summarize numerous users' feedbacks stored in the database. The generated feedbacks can be stored in another knowledge base. So as much as we add feedbacks in the ordinary data base, we will fill the knowledge data base with pre-analyzed feedbacks.
- d) iv)Before sending the user's feedback and appreciation about the product to the system, we have to verify the concordance between them in order to avoid and eliminate contradiction or malicious programs attacking our system.
- e) In the redirected interface, we will display several feedbacks from different types. However, the user can specify the number of feedbacks to be liked or disliked. The system can also specify the minimum and the maximum number of feedbacks to be displayed by the user.
- f) The algorithm is used in order to generate the user trust degree which plays the role of a coefficient and then rectify his appreciation according to his trust degree and generate the score of the feedback.
- g) Sentiment Analysis[2][10] is done on the reviews to give user an opinion whether to buy product or not.

IV. CONCLUSIONS

Proposed System aims at creating trust and propagating it in online communities while giving actionable results. Those results such as trust weight, scores and Sentiment Analysis help users to make a decision about purchasing or not a particular product. Proposed design will use both ratings and especially semantic feedbacks in order to calculate trust weight and to classify comments and users. Sentiment Analysis will be performed on Feedbacks.

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