



---

## AN INNOVATIVE PATH FOR APPEASING CRUEL RATING AND COMPUTERIZED REPUTATION

<sup>1</sup>K.RAJALAKSHMI & VIDHYA, <sup>2</sup>R.RAJESWARI, <sup>3</sup>MRS. S.CHITRA

<sup>1</sup>MVIT, Puducherry, M.Tech (Ph.D)

<sup>3</sup>Assistant Professor-Department Of IT

Manakula Vinayagar institute Of Technology Puducherry.

<sup>1</sup>Email-id:mailrajik@gmail.com,

<sup>2</sup>Email-id:rajisekaranmail@gmail.com

---

### ABSTRACT

Owing to the rapid development of technology, services are increasing swiftly in quantity. The consequence is that there are so many services that share the same or similar functions. This system performs two operations. Firstly, the system periodically calculates the reputation value. Secondly, it mitigates the unfair ratings based on the user's context log features and search snippets. This system actually helps the app developers for creating new app by overcoming the consequences of an existing one and referring the user's context log features and snippets. This system proposes a novel method to calculate the service reputation value periodically which enables the users to select and download the highly rated/downloaded apps. This system also includes the method to mitigate the unfair ratings given by the users based on their context log features and search snippets.

**INDEX TERMS:** Reputation, compulsory rating, unfair ratings.

---

### I. INTRODUCTION WEB SERVICE

A Web Service is a method of communication between two electronic devices over a network [5]. It is a software function provided at a network address over the Web with the service *always on* as in the concept of utility computing [3]. A Web service is a set of related application functions that can be programmatically invoked over the Internet. Businesses can dynamically mix and match Web services to perform complex transactions with minimal programming. Web services allow buyers and sellers all over the world to discover each other, connect dynamically, and execute transactions in real time with minimal human interaction. It is the piece of software that provides the communication between any two electronic devices

over the network through the XML messaging system and it is a set of methods exposed through a web interface [3]. It messages are encoded in an XML dialect called Simple Object Access Protocol (SOAP). It allows constructing and sharing independent and autonomous software. It is a software system designed to support the interoperable machine to machine interaction over a network. It has an interface described in a machine - process able format (specifically WSDL). Other systems interact with the Web service in a manner prescribed by its description using SOAP (Simple Object Access Protocol) messages, typically conveyed using HTTP with an XML serialization in conjunction with other Web-related standards. Web services allow different applications from different sources to communicate with each other without time-consuming custom

coding, and because all communication is in XML, Web services are not tied on service-based model architecture. It allows us to communicate among all different entities without affecting their existence. web services reduces licensing costs [6]. It is written separately from the application logic. We use Web Service is that they improve the information flow between applications.

## WEB SERVICE SELECTION

Web service selection is an indispensable process for web service composition as to select best web service to a client's requirement and it is a process to select the most suitable service from a list of candidate services after service discovery or composition[7].The importance of Web services selection has been recognize by the academia and by commercial organizations. Several efforts are being carried to develop a selection language for Web services. Discovering services using existing standard technology is mainly a task of keyword-based searches in more or less complex verbal service descriptions [7]. It is beyond the scope of this give all possible problems that occur when trying to discover services for specific tasks. Using today's techniques the user has for instance to use the exact phrases and ontology that is provided by standards like WDSL. Improvements for this situation are given by several techniques for matching of anthologies or expansion by suitable thesaurus.

In contrast to the task of composing Web services the selection of the right services strongly depends on the costs of a specific service or the objects or information that a service can provide. For instance there may be a variety of services revealing the location of a certain person, but at different costs or with different accuracy [4]. The same applies for more complex service like e.g. flight booking, where a user has to know if the service offers a certain flight that suit his or her needs, before using the service. Therefore two aspects are necessary for service selection. The service has to be generally able to perform the desired task Offer the specific object/information the user is interested in. Thus users first have to query all possible services that generally perform their task, if they will also satisfy their specific need. Assuming that a set of services has been discovered, we will now discuss those personalization techniques that lead to a eventual choice of services offering the best quality for each specific user [1].

We will first revisit our motivating example, then state the algorithm and perform a sample interaction. There are some steps that are used to select the appropriate services available among multiples algorithm shows the necessary steps that have to be performed in order to choose adequate services and get the maximum quality results for those services. Perform a keyword-based search on the semantic service descriptions to find services for the specified goal and parameters and discard all services that do not allow querying with all user-provided query terms (explicit hard constraints).Get the service parameters that are offered beyond those covered by hard constraints.

If existent, get preferred values for the parameters collected in step 3 from user profiles, domain knowledge, etc. (implicit soft constraints). Expand the user's service request with these soft constraints and query the services from step 2 with their respective signature. Collect all services' results and order by their utility, e.g. assign highest utility to those results meeting the softest constraints.

## BENEFITS OF WEB SERVICE SELECTION

Search engines can better understand the contents of a particular page and more accurate searches and Additional information aids precision [2]. It can possible to automate searches because less manual weeding is needed to process the search results and it facilitates the integration of several Web services. The Organization Of this First section contain the overview, benefits, and various classifications of the web services and second section describes the related work of the existing system and third section contains the our proposed system. The fourth section concludes the work.

## 2.RELATED WORK

The Selection of Web Services based on Provider's Reputation actually measures the actual reputation of a services provider by considering various reputation measures of few reputed service providers. The feedback mechanism from the user and false rating by the provider leads to confusion and always creating problems in reaching customers requirement. Trust and reputation management for service provider plays an important role in trustworthiness evaluation [5]. Here the estimation of service's trustworthiness based on

history information and the actual measures that influence the provider reputation.

The Reputation-aware service selection based on QoS-Similarity is used to identify the malicious consumers and success rate of service selection by using clustering and association rules algorithm. This paper introduces a reputation model considering collusive consumers. They get the current reputation by utilizing the similarity between advertised QoS from service providers and delivered QoS from consumer's evaluation, then update the global reputation and save them into reputation centre and service providers[6]. At the same time, in order to prevent providers tampering with reputation, they use the digital signature.

The QoS-Based Service Selection and ranking with Trust and Reputation Management presents a QoS-based web service selection and ranking approach robust against various cheating behaviours, and are of good quality even in hostile situations in which many different types of cheaters make up a high percentage of the overall users and report values with remarkable variances [2]. By combining a trust-distrust propagation approach with a data-mining method, we could filter out almost all cheaters and find out honest reports to be used in the quality prediction process with very high probability.

Toward Trust and Reputation based Web Service Selection proposes a typology to classify trust and reputation systems using the three criteria, centralized or decentralized, person or resource, global or personalized. Trust and reputation mechanisms have been used in many large open systems to solve the problem of selecting services/providers [3]. A trust and reputation mechanism is a mechanism using consumers' feedbacks to identify good services from bad ones. It represents a collective evaluation of a group of people/agents, while trust is personalized and subjective reflecting an individual's opinion [3]. It can be gained from a person/agent's own experiences with an entity or the reputation of the entity, while an entity's reputation relies on the aggregation of each individual person/agent's experiences with it. From all the related work we found that they does not periodically calculate the reputation value. In our proposal, we are introducing a novel approach for periodically calculating the reputation value and providing the best service and to perform mitigation of unfair ratings based on context log feature and search snippets.

### 3. CRUEL RATING APPEASAL AND COMPUTERISED REPUTATION

The main objective of the proposed system is to periodically calculate the reputation value for the apps based on the user's feedbacks and ratings. Whenever the user searches and selects the app, the system requires the user for compulsory rating. Based on the ratings and the suggestions the admin will respond the users after serving their suggestions. After receiving the update, the user updates their new rating for that app and the system updates the reputation value in a periodic manner. This system mainly focuses on mitigating the unfair ratings of the fraudulent users based on the context log feature and search snippets. The new app developer gets profited by developing the apps based on the user's context log feature and the search snippets.

#### 3.1. SYSTEM DESIGN

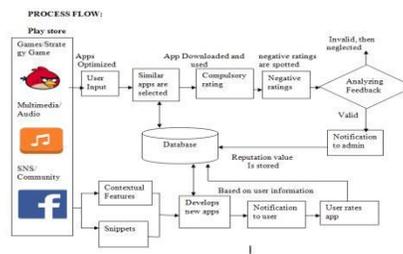


Figure 3.1: Architecture

Figure 3.1 shows the architecture of our proposed system comprises of the play store which consists of all the apps that are developed and released by various developers. When an active user requires an app, the system displays apps from which user may select & download the one based on existing taxonomy. Users are required to post compulsory rating. Ratings below the threshold value are identified as negative rating. The negative ratings are spotted and analyzed whether valid user or fraudulent user. If the user is valid, their rating and suggestions are accepted and required services are provided. If it is a fraudulent user, their rating is neglected from the calculation of reputation value process. The users are prompted to rate the updated apps and reputation value is modified according to users rating. The new app developer gets benefited by exploring the contextual log feature and search snippets to know about the needs and

requirements of the app users by knowing the pro sequence and consequences of an existing app. After developing new app, the developer sends notification to user to enhance the app.

#### COMPULSORY RATING

All the apps available at the play store developed by different developers are optimized in the search engine. The Apps are categorized based on taxonomy. When the user can select and search their apps. Users after reading the details of the apps and user reviews, downloads the interested apps. After downloading, compulsory rating is asked for the promotion of app.

#### CALCULATING THE REPUTATION VALUE

The reputation value is nothing but the value which denotes the popularity of an app. Reputation value is calculated using dynamic weight formula, where each user rating is considered as a weight. This reputation value includes both the positive and negative ratings. Some ratings might be fair and unfair. The most trivial task is to convert the negative ratings into positive ratings by working on the updates of the app. The unfair ratings are mitigated using the contextual features. The dynamic weight formula to calculate the reputation value is given by,

$$\bar{x}_n = \frac{1}{n} \sum_{i=1}^n x_i$$

Where  $X_n$ = average of n ratings  
N= no of user  
i= individual user ratings

#### MITIGATING THE UNFAIR RATINGS

The unfair ratings refer to the ratings which are given by the fraudulent users. Those unfair ratings are not considered during the calculation of the reputation value. The negative ratings spotted for an app are analyzed as either fair or unfair ratings. The fair ratings and suggestions are allowed and the developer will respond the user with the serviced updates.

#### ENCOURAGING NEW DEVELOPERS

This system encourages the new app developers in the sense; they can get some new ideas from the existing app. This can be terminated by analyzing the context log features and search snippets of a random user of an

existing app. The pro sequences and consequences of the existing app is achieved and the new app developer cracks to develop a new app to meet the Specifications of the user. After developing, the developer sends an acknowledgement to the users and also invites them to suggest the app for their friends for the up gradation of the app.

#### 4.CONCLUSION

This System periodically calculates the reputation value for the apps. Whenever the user searches and selects the app, the system requires the user for compulsory rating. Based on the ratings and the suggestions the admin will respond the users after serving their suggestions. The user updates their new rating and the system will update them in a periodic manner. This project mainly focuses on mitigating the unfair ratings of the users, based on context log features .The app developer gets profited by developing the new app based on the user's context log feature and the search snippets.

#### 5. REFERENCES

- [1] Hengshu Zhu, Enhong Chen, Hui Xiong, Huanhuan Cao, and Jilei Tian "Mobile App Classification with Enriched Contextual Information", IEEE Transactions On Mobile Computing, VOL. 13, NO. 7, JULY 2014..
- [2] Haiteng Zhang, Zhiqing Shao, Hong Zheng, and Jie Zhai "Web Service Reputation Evaluation Based on QoS Measurement", Dept of CSE, East China University of Science and Technology, China, Received 9 March 2014, Published 13 April 2014.
- [3] A. Jøsang, R. Ismail, and C. Boyd, "A survey of trust and reputation systems for online service provision," Decision Support System., vol. 43, pp. 618–644, 2013.
- [4] P. Wang, Z. Ding, C. Jiang, and M. C. Zhou, "A Web service based public-oriented personalized health care platform," IEEE Trans. Syst., Man, Cybern.: System., 2013, to be published.
- [5] Rajeev Pratap Singh, K.K.Pattanaik" An Approach to Composite QoS Parameter based Web Service Selection ,The 4th International Conference on Ambient Systems, Networks and Technologies, Procedia Computer Science 19 ,2013.

[6] M.Mohammed Sha, K.Vivekanandan "Selection of Web Services Based on Provider's Reputation" International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-2, Issue-3, February 2013.

[7] W. T. Tsai, R. Paul, Z. Cao, L. Yu, and A. Saimi, "Verification of Web services using an enhanced UDDI server," in Object-Oriented Real-Time Dependable Systems, 2013. (WORDS 2013).