

# Timely Event-based Confide System using Social Networking

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**Abstract:** *Trust Based service is the abstract form of the symbolic representation of social trust. This trust system is used to develop the confidence between the groups of people on timely event also. So if any point of view a person needs a service which is to be represented on the time, then the perfectness on whom to trust and up to what extent one should be effectively participating can be calculated from so called analysis. Here the times based confide system is based on the equilaterals on the following concepts as (1) Timely Events and (2) Near Events and (3) Events that “touch” In Timely based Events, nearly everybody is desirous to know about what is happening around them. They pursue the internet, read the newspapers, and watch TV and text message their friends to stay alert on daily events happening around them. In that respect everyone is interested in knowing about what is happening now, or this morning, or before they go to bed. In Near Events the average reader is more interested in the events that take place near him than those at a distance. In that concept, more distant the event, the less interesting it is. As you see, distance plays an important factor affecting in one’s interest. The last but not the least is Events that “touch”. In this aspect the event that is happening near him largely because they touch his life somehow, in some way. The information that is gathered is interesting due to some respect because it is affected to the nearby users.*

**Keywords:** Trust based, Social Networking, Confide Based System, Timely Events Trust based service system, Service System.

## 1. INTRODUCTION

As explained Trust based system can be seen as symbol-based automation of social decisions related to trust, where social agents instruct their technical representations on how to act while meeting technical representation of other agents. In that respect the trust system is used to set the rules defined by social agents that they represent. [1]

Trust management can be best illustrated through the everyday experience of tickets. One can buy a ticket that entitles him e.g. to enter the stadium. The ticket acts as a symbol of trust, stating that the bearer of the ticket has paid for his seat and is entitled to enter. However, once bought, the ticket can be transferred to someone else, thus

transferring such trust in a symbolic way. At the gate, only the ticket will be checked, not the identity of a bearer. [2] Here the Timely based Trust System is distributed in mainly three events namely, Timely Events, Near Events and events that “Touch”.

Timely Events are for nearly every person who wants to feed the desire to know that is going on around them. So they extract information from the Internet, read the newspaper, watch T.V., and text message their friends to stay alert on current trends, events and news. They are interested in things that are happening now, or this morning, or before they go to sleep. The fact that the event “Just happened” is sufficient to interest most persons. We live in the present. The events of today, or even this hour is more important, while yesterday’s news continually crowd out from our minds. One of the first elements of interest therefore is timeliness.

Now the second stepping stone is Nearly Events. In this event the average reader is more interested in events that take place near him than those at distance. The fact that a burglar entered a house on reader’s street and stole jewelry is more interesting than reading about crazy person robbing banks in another city. The wreck of neighbor’s Rolls Royce keeps us talking much longer than a massive train wreck in any other country. The average person is more interested in things going on around him – things happening to persons he knows or near places he knows. He has little interest left for events occurring at a distance or elsewhere. The more distant the event, the less interesting it is. So distance is an important factor affecting one’s interest.

The third stepping stone is Events that “Touch”. In this event the average reader is more interested in events that take place near him largely because they touch his life somehow and in some way. In similar situation, any event, nearby or far away, that affects his life will interest him immediately. An oil spill in Iraq may interest us reader mildly, but if it raises local gas prices, then we begin to talk about it at once. The event – the rise of gas prices – is not only nearer, but it affects us personally.

So overall to judge the real value or interest in any event, one need to know thoroughly study the profession. For example, if reader is of business profession, then system should work on the basis business only as he may not be interested in cricket news; and also young lawyers are not interested in the same things as car mechanics.

## **2. ORGANIZATION OF PAPER**

This paper represents the thesis proposal of partial fulfillment of Master of Engineering in Computer Engineering. Inside it, various sections explain the definition starts from section 3 which indicates the previous work done by various researchers taken as base. Section 4 includes definition of research. Next section gives idea about architecture of system. Section 6 describes step by step representation with equation used for implementation. Next sections describe an example of this work and conclusion respectively. Citations of referred papers are shown in reference section. Section Author includes introduction to Authors.

## **3. RELATED WORK**

Timely Event based trust system is a uniquely designed to know the interest of people in which they are categorized to work. So here in this section trusted system can be defined truly on the basis of classifications of various norms.

Perhaps during earlier times the email systems were used to share the information between the two people without interference of the rest of the clouded people but in today's world information sharing is gone global [3] and so are the security problems. In that respect the lot of field such as E-commerce on internet zone cannot be easily trusted [4].

Due to this reason various other steps are taken for accumulating the responses and results. Here approaches made by describing various E-marketing models using Social Networking on which the trust can be more clarified. [5] One of them also proposed a new idea of getting a group based service on E-commerce buying using Social Networking. [6]

On the other hand of timely event, the resources can be gathered from the approaches taken for obtaining the identity and privacy to ensure the user workability and safety. [7] This system is needed when the user is required to produce some artifacts on timely based events such as ticket checking and much more.

In context to privacy there is one more option to opt according to the profession and user centric view and details, [8] the information could be delivered on the basis of the selection of the user's reviews and likes on Social

Networking. So with respect to the user likings the professional businessman would be subscribed for business news rather than getting sports news or any other irrelevant news to business person. This news also gets changed on time to time basis.

This could be also extended on the nearly events such as Movies reviews based on Semantic Web-based social networks, to generate the movie recommendation. [9] In this respect the extensions could be done more on the location basis and various attributes can be also added to work on the reviews to be generated.

The social networking concepts can also be made more attractive by timely based E-learning concept which treats all the persons gaining access to it, can educate them by "Each one Teach one" concept. [10] Also the same concept can help indeed to work or attract people on timely basis to government sectors in G2B i.e. Government to Business sectors. The same concept can be used to define the productivity and performance up gradation of the services and products. [11]

Also on the location and service based on time, one can approach the business trust system based on behavior of the system. This would give the new horizon towards the structured way of getting the awareness of behavior of the organization or firm or individual. [12]

## **4. PROBLEM CONTEXT**

The work is mainly focused on the effective collection of data and generating various analyses on the basis of techniques and policies with platform of Social Networking websites. Here, the main goal is to generate various trust based timely events which can be collected from various user resources and give particular attentions on the social networking system. Furthermore we can consider the various challenges on overcoming new coming events and timely generated responses.

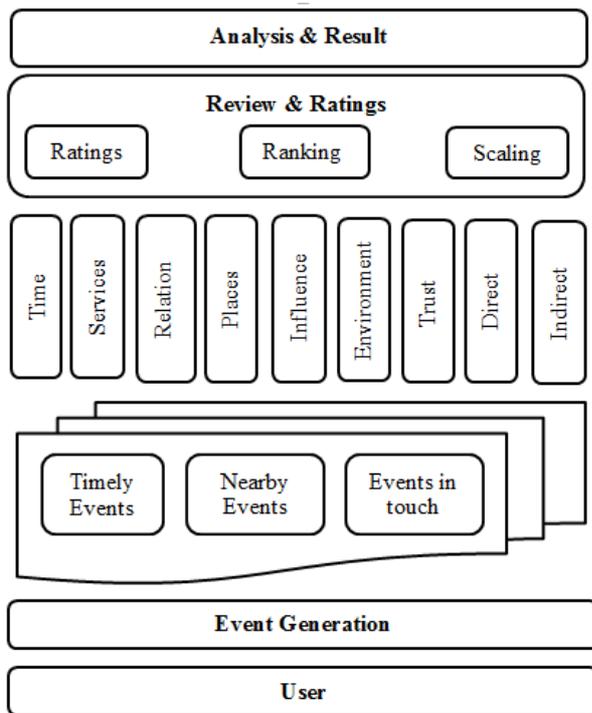
The main contributions of work shall be in following - folds as mentioned below:

- 1) The system is working purely on basis of user opinions and reviews on social networking websites, which would generate the analysis on various aspects.
- 2) All the three timely events mentioned in abstracts can be easily covered in broader sense.
- 3) Designing an algorithm which suits the following style and testing on Social Networking websites by developing apps accordingly.
- 4) The analysis portion would conclude various analyses which could be then tested by our trust based system and check its reliability and other information.

**5. ARCHITECTURE OF SERVICE SYSTEM**

Here, the architectural design is having the base of a user who wants to gain some analytical knowledge about the timely based system. This system can be helpful to a lot of user to keep in state of mind that how probability could help them discover the new ways to solve the problems of daily world by gaining the views and trusts of different people in our circle.

Also, here in this system the User is will generate an event from the application developed in support of a social networking website. This would deal with a lot of options to serve and fit the best for the user to please their friends and colleagues. Thus our system is basically been divided into three most prestigious stage which is described in the later stage, i.e. Timely Events, Nearby Events, Events that “touch”



**Figure 1:** Timely Based Event System Architecture

This in respect would give more options in depth like, time, services, relations, places, influence, environment, trust, direct or indirect. The User will generate the events as per its need and requirement and along with that he will generate the questionnaires for his friends and its group circle to look forward. Then comes the analysis phase in which ratings, scaling, ranking of particular events are been discovered and structured to give proper working of the system.

**6. SYSTEM ALGORITHM**

Algorithm has been decided by testing a lot of criteria and finally designed following steps which are going to be implemented.ps to follow. System is basically depends

on trust as well as events those are to be generated. So, time is measure concern for current research.

- Step 1:** Generate number of events from this application.
- Step 2:** Get user’s opinion or rating for any events which are going to be generated. Generate a matrix of user rating for any event. Following matrix defines in the form of ‘Event x User’.

$$R_{m \times n} = \begin{pmatrix} r_{11} & r_{12} & \dots & r_{1n} \\ r_{21} & r_{22} & \dots & r_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ r_{m1} & r_{m2} & \dots & r_{mn} \end{pmatrix} \text{ Where } 0 \leq r_{ij} \leq 1$$

- Step 3:** Find Correlation matrix by using following formula:

$$D_{m \times m} = \begin{pmatrix} d_{11} & d_{12} & \dots & d_{1m} \\ d_{21} & d_{22} & \dots & d_{2m} \\ \vdots & \vdots & \ddots & \vdots \\ d_{m1} & d_{m2} & \dots & d_{mm} \end{pmatrix}$$

Where,  $d_{uxv} = \sqrt{\sum_{i=1}^n (r_{iu} - r_{iv})^2}$

$N_{ij,k} = 2 * D_{m \times m}$

- Step 4:** Find trust value between two nodes i and j for any time k. Time by time trust value may be changed as per user’s rating and communication. [8]

$$T_{ij, k} = [\log_2 (N_{ij, k+2})]^{\psi_{ij, k}}$$

Where,

$$\psi_{ij, k} = \left( \frac{2d_{ij}d_{ji}}{d_{ij}^2 + d_{ji}^2} \right) \left( \frac{d_{ij}}{d_{ij} + d_{ji}} \right) \beta$$

Where  $\psi_{ij, k}$  =Trust Factor

$r_{ij}$  = rating given by any user j to event i.

$r_{ji}$  = rating given by any user i to event j.

$\beta$  = Scale Factor=1.808318

- Step 5:** Generate trust matrix by using above

$$T_{ij} = \frac{1}{n} \sum_{k=1}^n \frac{T_{ij, k}}{k}$$

$T_{ij}$  is the overall trust rank of i to j for n time intervals. For a sequence of time intervals  $k=1 \dots n$ , we represent  $t_1$  as the current time interval and  $t_n$  as the farthest time interval from current time.

$$T_{ij} = \begin{pmatrix} t_{11} & t_{12} & \cdots & t_{1n} \\ t_{21} & t_{22} & \cdots & t_{2n} \\ \vdots & \vdots & \cdot & \vdots \\ t_{m1} & t_{m2} & \cdots & t_{mn} \end{pmatrix}$$

**Step 6:** Find performances from the various criteria. For that purpose creates a table which is shown below: Priority will be given by a user who generates an event.

**Table 1:** Trust Table

| Event | User | IT <sup>1</sup> | FT <sup>2</sup> | Performance |
|-------|------|-----------------|-----------------|-------------|
|       |      |                 |                 |             |
|       |      |                 |                 |             |
|       |      |                 |                 |             |

$$\text{Performance} = \left( \frac{\text{FinalTrust}}{\text{InitialTrust}} - 1 \right) \times 100 \%$$

**Step 7:** To find the overall performance,

$$\overline{\text{Performance}} = \frac{1}{n} \sum_{i=1}^n \text{Performance}_i$$

## 7. ILLUSTRATIVE EXAMPLE

The System consists of mainly three core parts as mentioned in the Architectural Design. The time based event system is a good to be understood in regular life. The example we can set here can be given as:

Suppose a company person wants to keep track of his products in different ways, i.e. Which product sale the most in the location, what is the price affecting them, what are the artifacts that one needs to study to boom their product. Also, the occasion in which the person can spend more onto which product to give better sale and its booming profits. So, this would give a new look towards the system readiness and its effective style of business.

Another example we could study of is the weather in which a traveler can travel to particular country or city. Here traveler can generate a time based event system about the weather in which he feeds all those information which can be understood by his friends. His friends who have the knowledge would vote for it accordingly. This vote would also depend on the previously owned trust by him. So the result would become more and more accurate accordingly.

## 8. CONCLUSION

While everybody thinking on the internet in today's life the social networking comes the fore front to gain the

knowledge about timely based event system, working on today's life. Here all the aspects and chapters of daily life cannot be covered but can study a small but an important topic can be thoroughly studied.

Imaging about the future extension, we can go beyond still equate more in unions, and subsets forms, giving more detailed knowledge of connected people mathematically, this equates to more precise and improvised form of generated results. Here, instead of getting at particular basket of bowl - if any implementation can be done in which the entire gulp can be grabbed then the algorithm would even get more of the perspective.

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<sup>1</sup> IT = Initial Trust

<sup>2</sup> FT = Final Trust

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