Crowds Method For Emergency Event Description In Social Media

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Abstract: *Crowd sourcing is most emerging and popular technology which is use currently. It provides easy gathering and manipulation of huge data hence it becomes the most favorable choice among big organization. In this paper we have done search on quick notifications about the events for nearby user. With the help of this application user can provide the event description along with the image to better understand what exactly incident it held. Application is get used with few details after registering user can feed and access the application as per their need. Events are sudden part of the life to deal with them it's the way to get interacted along with technical world, social media is now part of our life so this is the easy way to interact and notified.*
Keywords: Crowd Sourcing, Emergency Events, Social Media.

I. Introduction

The internet is becoming a major information provider of emergency events with the popularity of World Wide Web and this is due to real time, dynamic and openness features. In this paper crowd sourcing based algorithm for detecting emergency event is held in order to pass information about event quickly and to help the particular social groups to process the events efficiently. The process of acquisition, integration, and analysis of big and heterogeneous data generated by various sources in urban spaces, such as sensors, devices, vehicles, buildings, and human is called as Crowd sourcing. Referred to urban emergency events held at, or affecting specific locations can also referred from social media contents. Crowd sourcing carry ubiquitous and unobtrusive technologies, analytics models, advanced data management and novel visualization methods with the help of cloud computing, internet of things and Big Data, to create solutions that improve urban environment, city operation systems and human life quality. For example, the urban resident may face storms, traffic jams, fires and so on. Thus, to protect the security of urban residents it is important to detect, resistant, and analyze these real time urban emergency events. To form participatory sensor networks crowd sourcing is also an emerging computing paradigm that tasks everyday mobile devices. It allows to share local knowledge acquired by sensor-enhanced devices of mobile phone users, e.g., to monitor noise level or pollution level, traffic condition, etc. Weibo is a social network can be seen as a sensor receiver. Usually, the users of Weibo can be as "social sensors" For example she/he can be seen as a "fire sensor" or "crash sensor" if a user makes a message in Weibo about a fire or crash. The 5W (What, Where, When, Who, and Why) model is proposed in order to describe the real time urban emergency event based on crowd sourcing.

II. Literature Survey

We have done literature survey on the related topic and found some solutions to the respected problems they are as follows .In [1] has used CroC&Ts system based on multi- agent technology for solving performance-based design of large venue egress .A heavily action-based learning course can be effectively supported and enhanced by CPF [2] but it's not consider students do not perceive many benefits and did not express strong sentiment on way or the other. In [3] has used evaluation of artifacts of CIMAM, to assist in the assessment of crowd sourcing paper. For solving crowd sourcing problem in [4] has used Web and CLB technology. Beyond providing a rich description of the role of the intermediary in crowd sourcing, this study presents several important insights. In [5] this paper it used Social sites technique for solving the problem the paper addresses a new problem: when and how to ask users to contribute. They point out about many web sites now depends on the user's participation to respond to queries. In this exploratory empirical study in [6], we have presented some evidence for supporting the important role of citizens in the government crowd sourcing experiment. But it's not support Norman through Twitter-enabled crowd sourcing in [7] they used Computational and enhancement technology for solving these interesting phenomena of social networking also attracted us, and so we benefited from malware victims' notes posted on Twitter to warn other people. VeDi [8] reduces the overall bandwidth consumption as users can select most appropriate video without downloading them all. But it's not support the issue of cles by forming vehicular ad-hoc networks (VANETs) forwarding video packets over VANET nodes. In [9] in this paper, has propose a multi-path routing algorithm to direct different types of evacuees with respect

to their ongoing requirements. In [10] has used Punning and Bounding Technology in this paper, design an online wisdom management mechanism, named Macro Wiz, for general crowd sourcing applications. The core units of MacroWiz include the wisdom collection module and the answer selection module.
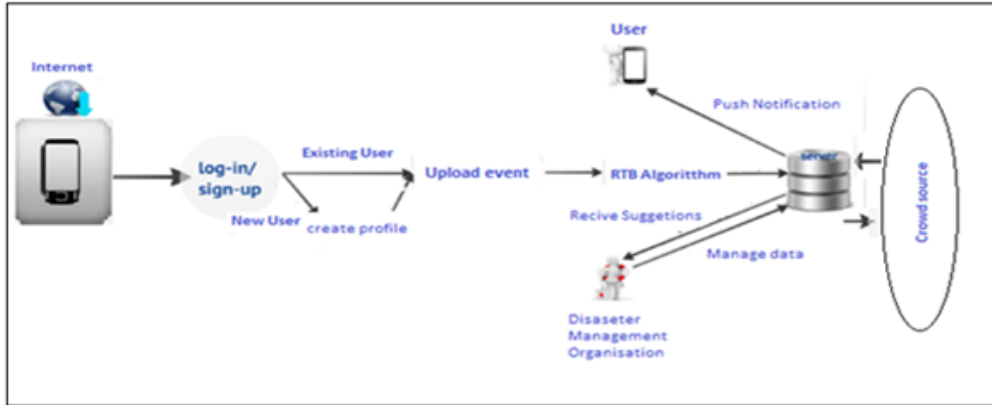
III. System Architecture

Fig 1: Architecture system

In our proposed system, we are providing an app (mobile application) which is based on emergency event description techniques using 5W model. This app have few options inside it for user ,where it can provide the registration for new users and those who are already registered with this initial stage we can proceed further. After this user can eligible to upload the data as event and also can access events which are uploaded by another users .Also news section is provided in app from where user can fetch latest news from various news portals. This app also provides emergency contact numbers to user to interact with emergency management authorities. The main feature of this system is that it avoids the fake events or rumors about any event using active volunteers. Internal data structure for this system can be various information passed through 5w model like location information, what the event is actually, reason behind the event, timing information about event and victim or witness information. Internal data structure also includes images passed to system by user which describes events in more better way. Data structures that are accessed by major or almost all components of the architecture are called as Global data structure. Global data structure includes overall data structures including internal and external data structure. Global data structure distributes the data globally among all components of the system In this system Global data structure includes various information accepted from user using 5W model along with images related to events. It also includes the user information like user name, password and send it to Data base for identification. Global data structures stores information in more specific way like whether user is volunteer or simple user. It also stores information about admin of the system like user name and password of admin.

IV. Algorithm

Step1: Start
Step2: Listen to the emergency events.
Step3: Take input as:
Step 3.1: What:

$$W(S) = \sum_{v \in S} w(v).$$
… (1)

For capture our objective we need to de ne appropriate weight and distance functions for subsets of vertices. Given S V we denote such weight and distance functions by W(S) respectively . As a set weight function we consider simply the sum of all the weights in the equation (1).

Step 3.2: Where:

$$K_r = (C_a - C_r)\lg(\frac{C_a - C_r}{B_a - B_r}) + C_r\lg(\frac{C_r}{B_r}) - C_a\lg(\frac{C_a}{B_a})$$
------(2)

Equation(2) is for spatial scan statics to detect significant clusters. We aggregate to the count of event related in city level and define the base of each city as a total found of the original in app.

Step 3.3: When:

$$\dot{x} = \frac{dx(t)}{dt} = \begin{cases} f^1(x), & \text{if } g^1(x,t) < 0 \\ f^2(x), & \text{if } g^2(x,t) \equiv -g^1(x,t) \leq 0, \end{cases}$$

$$\dots (3)$$

More complex switching structures are permitted. When the algebraic event function gi(x(t); t) (also called a guard or discontinuity function) changes signs an event occurs, causing a discontinuity in The abrupt switches in I resemble discrete-event systems, while the dynamics of x are governed by continuous equation(3). Such systems arise in many contexts such as contact mechanics, phase transition and failure mode simulation, and are often referred to as combined discrete/continuous dynamic systems, hybrid systems, switched systems, or simply non-smooth systems. Of particular interest is the fact that physical systems controlled by embedded microprocessors can be modelled in such a fashion.

Step 3.4: Who:
Social sensors may act as the witness of an urban emergency event since they are at the place of the urban emergency event.

Step 3.5: Why:
An emergency event is a sudden, urgent, usually unexpected incident or occurrence the requires an immediate reaction or assistance for emergency situations. Since the huge damage and influence of the urban emergency event, it is important to collect the reason after the decline of that event.
Step4: Integrate, analyse, information according to 5w domain.
Step5: Prioritize and aggregate information.
Step6: Display the information of Emergency events in various formats such as text, picture, and videos.
Step7: Stop.

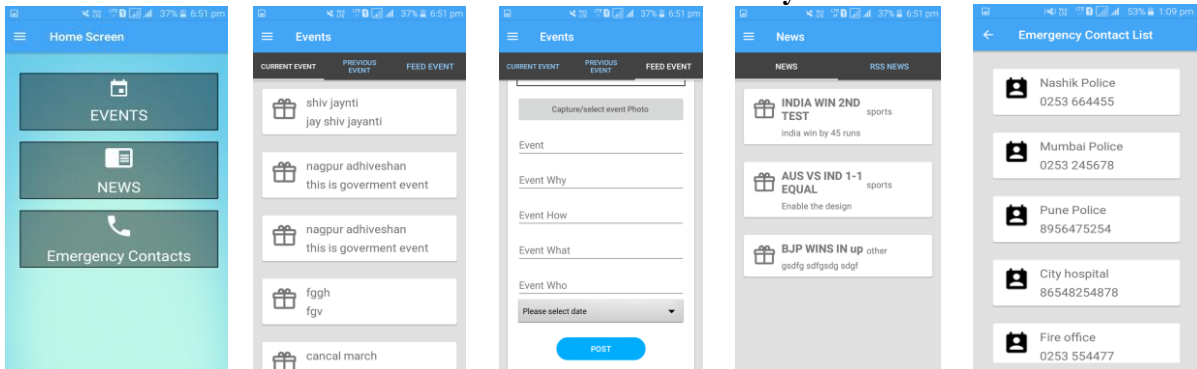## V. Results And Test Summary

Fig 2(A): Menu   Fig 2(B): Current Event   Fig 2(C): Feed Event   Fig 2(D): News   Fig 2(E): Contacts

The paper is based on application as given screens in Fig2(A) shows the main tabs of application that is Event, News and Emergency contacts, Fig2(B) is on Current Event which is only showing current list in ascending order, Fig2(C) is showing the process of feeding event based on 5W model, Fig2(D) is another tab for displaying news which is verified by admin, Fig2(E) is for emergency contacts for quick access to particular one in emergency event.
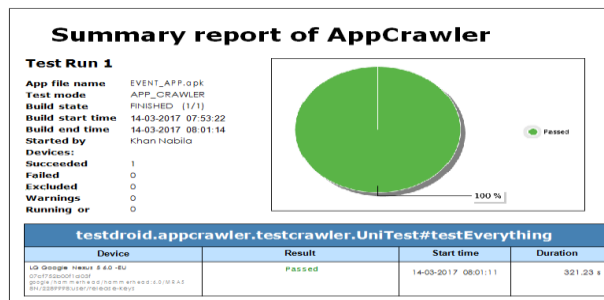

Fig 3: Testing Summary

VI. Conclusion

Crowd sourcing is a process of acquisition, integration, and analysis of big and heterogeneous data generated by a diversity of sources in environment, such as sensors, devices, vehicles, buildings, and humans. The content from social media often includes references to emergency events held at, or affecting specific locations Area. In this paper, in order to detect and describe the real time emergency event, the 5W (What, Where, When, Who, and Why) model has been proposed.

The paper is based on crowd sourcing, which uses the real time nature of users. The proposed model is applied into the emergency management which can provide useful information to analyze emergency events. Case studies on real data sets show the proposed model has good performance and high effectiveness in the analysis and detection of emergency events as it held.

To respond the emergency event, we proposed 5W model which will make easy and user-oriented environment. This model consist guideline about the description of event in the format of What, Where, When, Why, and Who is responsible or did the event. Future enhancement is to get the fully authorization to admin and further it can be get directly connected to the government sectors it is easy and fast responding application.

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