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Review Paper

DOORS: A Novel Social Intelligent and Philanthropical Social Network

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Abstract

Understanding user's requirements with knowledge extraction mechanisms from stored related data of the user, plays an important role for the orientation of fast real help providing social network. In this project a new method is proposed in which the request and location of the social network's member is identified first then according to the request as (job, food, shelter, health, finance, education etc), the nearest provider is identified and then informing the nearest provider. The mechanism proposed in this project could be helpful for under develop countries especially in Pakistan where no one knows exactly who has needs and who is provider, although we have reliable communication networks and social IT applications. Therefore in this project during prototype realization , the providers (Individual, Gov Department, NGO, Hospital etc) and seekers (Individual, company etc) will be registered at same place than any player in the social network when request something , the proposed nearest provider search and intimation method will be applied.

Keywords: Social sensing, social network for humanity.

Introduction

Social networking is defined as the connection of individuals or grouping of individuals into a specific group. The social network is a platform (e.g currently online platform) which holds and facilitates the connection among individuals. Manipulating the term social sensing involves, what kind of information can be sensed from the people to interpret and understand social needs. In order to understand the requirements of people there should be some mechanism as SMS to get particular requirement information (e.g food, job, shelter etc)[1]. According to the Edward Thorndike, *"social intelligence is the ability to understand and manage men and women, boys and girls, to act wisely in human relations"*[2]. Similarly the term philanthropy means " love to humanity" and every work or product in this world must be for humanity[3]. So integrating the real meanings of the terms social networking, social network, social sensing, social intelligence and philanthropy as shown in figure 1, a novel social intelligent and philanthropical social network "DOORS" is proposed. The main objective of the proposed social network is to manage the peoples, more specifically manage people needs and integrating providers and seekers.

To justify the importance, application and uniqueness of the proposed method through social networks, different trends and innovation in social networking have been reviewed. Hossein Rahnama et al, demonstrated a frame work called RAIMA (Relational Attribute Integrated Matching Analysis) and the suggested social network frame work aims to investigate social scores of the actors of social network[4]. The suggested framework is able to assist decision support mechanism to facilitate users socially. Also in the framework, an attribute matching mechanism is presented, which works efficiently when attributes are growing socially. Stephen P. Borgatti et al have demonstrated, the representations of position in social network which is analyzed by considering the comparative effects of two representations of position in terms of their applicability in several research areas. The authors tried to elaborate differences between abstract and structural representations and their effects in several domains[5]. Hasswa demonstrated the presence and policy server and the purposes of that server is to manage the information exchange between Social Networks, services and the environment and assist the entities to get relevant information and rules[6]. Also, the Presence and Policies server is capable of querying, importing, aggregating and transformation of data in meaningful form, for understandability of users and services. Péter Ekle et al have presented, a phonebook centric-social network, which aims to automatically synchronize the network members, between mobile's phonebook and social network[7]. The detection of network members is based on the similarity of the personal data, e.g., similar name, same phone number, address, etc. B Yang , presented an algorithm called FEC, to mine signed social networks by considering both positive and negative relations in a group. In the algorithm, FEC utilizes both attributes during mining, as sign of the relation as positive or negative and density of the relation. The key feature of FEC is, it works on both type of social networks as conventional and signed[8]. Christopher Rixon has expressed issues and solutions, which are realized to develop Social-Networks –as-a Service. The author suggested a metrics to measure the social software services and realized the importance of service measurement in software service management[9]. Andreas M. Kaplan et al have elaborated , the concept of social media and its uniqueness from web 2.0. The author clarified the characteristics of social media and

explores the way for companies, which would like to utilize social media for more profit[10]. Similarly many company's IT, Business and social writers including Google, twitter and freelancer exploited the current trends in social networking . Experts of famous I.T companies have explored the current state of the social network and what could be achieve from social networks[11]. After detailed theoretical survey of current research in the area of social network, it is concluded that, there is no such study and model available for social network, which could provide such a fast real help service. Therefore in this paper a novel social network is proposed with name "doors" and its ultimately goal is to provide help at people's door step.

While analysis there are several questions are considered as whether existing such networks can really help the actors of the network other then fun? What happens when a poor person need food? Can these cellular and social networks access and facilitate poor people? To answer and model these questions in[3] the author highlighted the facts that how the world can achieve equal humanity using IT as a main component. The author also addresses the current situation of the world as in fact the world has communication technologies but the picture of the world is different and how the integration of philanthropy and communication technologies can change the world. Therefore this paper highlights the concept and aim of the project "DOORS". Also the paper describes how to integrate philanthropy and social networking technologies.

Proposed System Description

The proposed mechanism through social networks provides a SMS based help service to the peoples, according to their any requirement, at their door step. The requirement could be food, job, shelter, finance assistance, work force assistance, education and requirements can be extended. To achieve this, all the providers and needs must be put at the same place as shown in Figure 1. The place would be the social network having proposed mechanisms.

In figure 1 the provider could be an individual, a company, an NGO, a government's department, any public sector department etc and each provider must be an active actor of the social network. Similarly a seeker could be an individual, a company for skill finding, a department for needy people finding etc. Now there is a need to provide such a mechanism in social network, which could help social entities really. To achieve this it is necessary to put community at single platform where each actor in the network must know who is provider and who has needs through artificial automated social sensing capability.

Layered architecture precise description: The proposed mechanism composed of 4 sub layers as shown in figure 2. i. SR layer (send receive layer) functions includes , providing and maintaining, sending/receiving request messages to the proposed social network (via GSM Based SMS,IP based SMS via social networking site). ii. MB layer (Master database layer) Its functions are to collect and maintain master data base of all peoples whether provider or seeker. Each actor will provide its information at the time of signup as Name, place, location, what an actor can provide etc and this information could be extended. iii. RHD layer (Request handling and delivering). The function of RHD layer includes request handling, nearest provider searching and sending intimation SMS to nearest provider in the network. This layer depends on need in the request SMS and sender location. Suppose a person has registered in proposed social network , his location is A as stored in the database, then suppose this person wants help and want to send SMS or message to our proposed social network, the RHD layer is active and will check the location of the person which is A , now in RHD layer the proposed algorithm will search nearest provider or you can say any provider who has location A and can provide , will be automatically identified and then intimation SMS will be sent to their cell phone or mail box. iv. FB layer (Feedback layer) any provider or seeker after fulfilling their job at "DOOORS" can use feedback SMS to update the social network.

Methodology and Realization

The mechanism proposed in this paper is stated as an internal mechanism in social network which could search nearest provider in the proposed social network and then automatically sending of intimation SMS to nearest provider. Considering existing social networks as Face book, My space, Twitter, LinkedIn etc, all have been using unique concept of services. Therefore the proposed mechanism is also a unique approach to provide real help services to the entities in a social network. For the prototype realization of proposed method consider the abstract view of working methodology as shown in figure 2. The step wise experimental methodology for each layer is as follows:

SR Layer: This layer is responsible for giving first interface towards the social network. Its first job is to give access and interface to both internet and just mobile SMS users. Its second job is to provide interface for request message editing and sending to social network. To achieve this, the software application will work as client-SMS messenger for actors in the network, through this the providers and seekers could register and use proposed social network for help or for providing help. For just mobile users GSM-SMS based service is integrated which offers request sending mechanism through GSM –SMS, as any registered user can intimate our proposed network about the problem of any person as sending SMS to "4444" or any else.

MB Layer: This layer is responsible for storing and management of all the information of actors in the proposed social network. The information is collected during the time of signup or registration phase, then placed the information in database in a way, which could offer efficient automated search and service triggering mechanism over the master database.

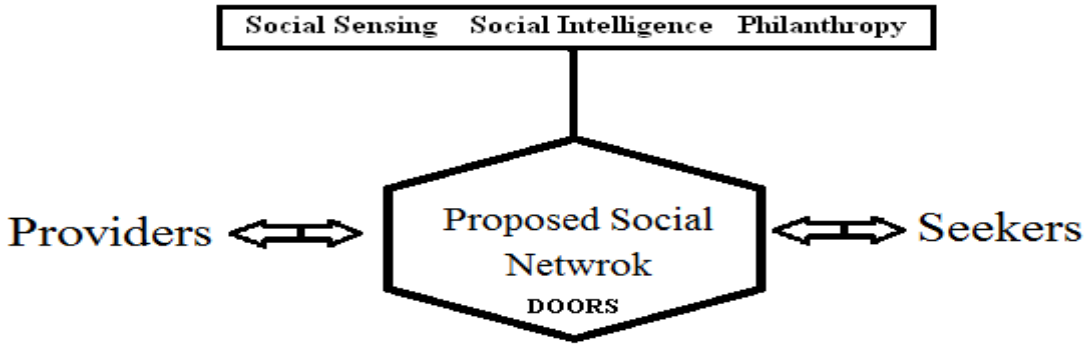

Figure-1
Putting community at common platform

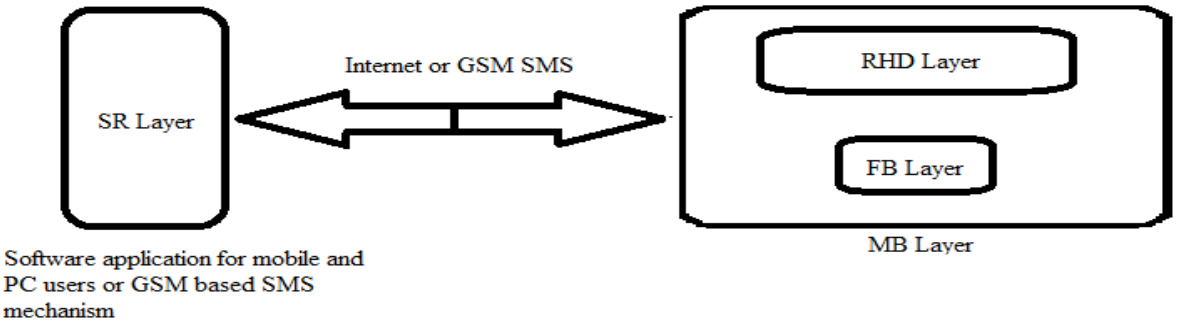

Figure-2
Abstract view of Proposed Social Network working methodology

RHD Layer: Request handling and delivery layer will offer an algorithm which first checks the request as what a person wants? Then search the nearest provider by searching over the database, once it finds nearest provider then its job is to send intimated SMS to each nearest provider to help such person. The intimation SMS will contain the location, name and demand of the seeker.

FB Layer: The purpose of the Feed Back layer is to encourage and keep record of the providers and seekers. As if someone has been helped by the proposed social network then the person which actually helped can update the network. The FB layer is responsible for giving and maintaining social scores of the actors in the network and its job could be extended.

Benefits and applications with country example

The proposed mechanism through social network could help any underdeveloped country as Pakistan, in many ways, which are as follows:

Community at Single Platform: Through such network the government can put whole nation at single control and manageable platform so a government can improve its social capital with technological management of social resources. With the deployment of such social network it can be stated that "It's a real use of communication IT which could improve government control and management. Also it is a common observation that someone cannot change the system individually, for this the whole nation must be mobilized in a positive way. Through such social network mechanism government can develop ethics of help in nation using communication IT. In Pakistan the system could be integrated with NADRA which already have national database.

Accessing poor peoples which required help as Food, Money, Shelter, Clothes, Education etc: The government can access to those percentage of population which lives at below the poverty line, which don't have even cell phone. Suppose a person want food and he/she don't have cell phone to communicate with the network but he/she can ask to his friend or any else to send a message to such proposed social network. Once the message come to network, now its RHD layer's job to search the nearest provider, for the actual needy person using data mining approaches. As in master database, the system will have the data of providers e.g food provider, money provider, shelter provider , education provider etc, these providers could be individual as well as a provider organization (e,g NGO, Government office etc). The primary job of the proposed network is to integrate seeker and provider and then later maintain the feedback from both parties.

Automated Mechanisms for Job seekers and Job provider: As each person's related information as skill and what he/she can do for the country (e.g investment , interested in construction, interested in electronic devices manufacturing etc)

is stored in master data base of the DOORS. Suppose a person is electrical engineer and his skill is stored as " chip maker ", so whenever that person send SMS to DOORS that "he needs job", the DOORS's nearest service provider algorithm searched for the provider who is willing to invest in " chip manufacturing". So both these person as job seeker and job provider will be communicated in no time through DOORS. Similarly the same mechanism will be applied for the number of job seekers and providers according to any type of job and investment.

Automated Identification of Nation Skills: Once the nation is registered with DOORS , it is quite easy to generate the report of Nation skills which will be very useful for human resource management. Because each person whether he/she is engineer, doctor, pilot, student, sweeper, player, constructor, driver, shopkeeper, teacher, scientist, etc must give his/her valid skill to DOORS during signup time.

Automated Identification of Real Nation Heroes: As the primary job of the DOORS, is to facilitate the poor peoples, especially those who are unable to get sufficient food. DOORS will integrate the providers and seekers. It will know which person in the DOORS has helped to community at what level, means DOORS will automatically put scores against each provider. So in order to identify the real nation heroes it would be quite easy to search in no time.

Conclusion

The real positive impact of communication technology may increase if it is accessible and deliverable to poor peoples. In fact in most of the world's under developed countries technology is accessible but not deliverable. Because there is a need of deploying intelligent social systems using IT, which could ensure that the communication technology is also deliverable. In this paper a novel social intelligent and philanthropical social network model with name DOORS is presented, which primarily focused on helping poor peoples. The scope of the proposed social network is from how to provide food , job, money, shelter etc and how to identify individuals in a network with different perspective. The scope is not static and it could be enhanced. The enhancement in the initial model is dependent on the how enriched information DOORS could get from users during registration time.

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