

CROWDSOURCING ANDROID APPLICATION

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Abstract: *The goal of this work is to avoid traffic on the roads such as the high dividers, open drainage, no reflectors, and damaged roads, etc. The project aims to build an android application for various problems faced by individuals in the day to day life for transportation on road. It's a user friendly and hassle-free application. The project also contains a desktop application for the end-user of the same. This paper provides the structure view of the research on crowdsourcing.*

Index terms- *crowdsourcing, surveying.*

1. INTRODUCTION

The "crowdsourcing" can be defined as using the internet to "outsource the work to the crowd". It is a type of participative online activity in which an individual, an institution, a non-profit organization, or company proposes to a group of individuals of varying knowledge, heterogeneity, and number, via a flexible open call, the voluntary a task. In simple words, it is the practice of obtaining information or input to a task or project by enlisting the services of a large number of people, either paid or unpaid, typically via the internet. The project being developed is based on crowdsourcing. This project focuses on getting information or complaints from people and solving them. The Android app helps to provide interactions between people and services, enhancing customer experience. At the same time, they help the authorities solve the public problem based on these complaints from the users. This application would be a solution to the delay in response to the customer complaints as the process provides sufficient whereabouts on the complaint registered by the user. It makes it easier for the authority to find the location of the problem and solve it as soon as possible.

2 .OBJECTIVE

The purpose is to reduce time and increase efficiency

in responding to the users. In the proposed system we are creating an android application that helps the user in the most effective way. The project also contains a desktop application for the NMC administrator. It uses appropriate API to send the current location of the user along with a complaint he is going to register. It also provides the user to upload the picture of the problem situation. The complaints are stored in the database and are accessible only to the authorized user who is the end-user in this case. These data are displayed on the desktop application created for the end-user. The location send by the user through his app makes it easier for the authority to verify the complaint and solve it as quickly as possible.

3. LITERATURE SURVEY

[1] In the paper "Interpretation, Modeling, and Visualization of Crowdsourced Road Condition Data" by Pekka Sillberg, Mika Saari, Jere Grönman, Petri Rantanen, Markku Kuusisto says that Nowadays almost everyone has a mobile phone and even the most basic smartphones often come embedded with a variety of sensors. These sensors, in combination with a large user base, offer huge potential in the realization of crowdsourcing applications. The crowdsourcing aspect is of interest especially in situations where users' every action can generate data usable in more complex scenarios. The research goal in this paper is to introduce a combination of models for data gathering and analysis of the gathered data, enabling effective data processing of large data sets. A description of the web interface used to illustrate road condition data.

[2] In the paper "Citizen science: crowdsourcing for research" by Catherine Lichten, Rebecca Ioppolo, Camilla D'Angelo, Rebecca K Simmons, Molly Morgan Jones Stated that Crowdsourcing draws on a large pool of people to gather inputs. It can be used in

citizen science research projects, where 'citizens' – usually members of the public – provide inputs and valuable contributions.

[3] In the paper "Enterprise Crowd Sourcing Literature" by Gonzalez L. Guevara describes that Crowdsourcing is a type of participative online activity in which an individual, an institution, a non-profit organization, or company proposes to a group of individuals of varying knowledge, heterogeneity, and number, via a flexible open call, the voluntary undertaking of a task.

[4] In the paper "Crowdsourcing Methods for Data Collection in Geophysics" by Ruoling Tao ,Holger R. Maier. As the physical and digital worlds are becoming universally connected, and computational resources and data are available beyond their immediate owner, it is now possible to effortlessly reach out to the masses, and open the "function once performed by employees and outsourcing it to an undefined network of people in the form of an open call", the process which How we defines as crowdsourcing.

[5] In the paper "Participation throughout the crowd. The importance of crowdsourcing" by Garrigos-Simon, Fernando J progress of information and communication technologies (ICTs) and the evolution of the Internet and the social networks have had a deep impact in the structure of firms and have altered the way organizations manage the production process of all kind of firms. In order to face the new environment, firms are originating new business styles based on such concepts as virtual teams and virtual communities. One relevant mechanism used by organization to copy with the new changes, is the namely "crowdsourcing", which has allowed labour to be outsourced to the crowd. This mechanism is applied from the definition of the product through its development, the production process and the logistics or distribution process, to its positioning, communications, brand management, or the sales service.

[6] Crowdsourcing is the IT-mediated engagement of crowds for the purposes of massive problem solving, task completion, idea generation and production. It is an important means of mass entrepreneurship and

innovation-driven development where the internet provides a medium of asymmetric information sharing between the participants.

4. DATA FLOW SEQUENCE

- The user starts the app with the registration page entering all the details such as Name, Email Id, Age, Contact no, Address, gender, etc
- If registration is already done then the user can directly select issues, whatever problem they are facing, select Area of town and select zone.
- After selecting an issue, area, and zone, the user captures the image of the problem and sends the current location to the NMC.

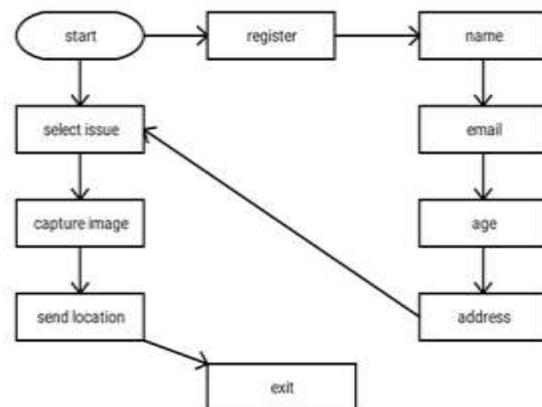


Fig: flowchart of a system

5. PROPOSED SYSTEM

The goal of the application is to avoid traffic on the roads such as the high dividers, open drainage, no reflectors, and damaged roads, etc. The project aims to build an android application for various problems faced by individuals in a day to day life for transportation on road. The purpose is to reduce the time and increase the efficiency in responding to the users. In the proposed system we are creating an android application that helps the user in the most effective way. The project also contains a desktop application for the end user of the same. It uses appropriate API to send the current location of the user along with a complaint he is going to register. It also provides user an option to upload the image of the problem situation. The data is stored in the database.

The complaints that stored in the database are accessible only to the authorized user who is the end-user in this case. These data are displayed on the desktop application created for the end-user. The location send by the user through his app makes it easier for the authority to verify the complaint and solve it as quickly as possible.

1. Splash Screen



Fig: The First Screen is the Splash Screen of NMC

2. Registration page



Fig: Second Screen is the Registration page where user has to enter the valid details

3. Issue Selection Page



Fig: User has to Select the Issue, Zone and Area.

4. CaptureImage



Fig: User has to Capture the image of the Problem.

5. Get Location



Fig: Send current location of the Problem

6. Login page for Admin



Fig: Login page for Admin to view and Analyse the problem.

6. CONCLUSION

This report presents a study of crowdsourcing concerning its derivation and development, current methods and status, and predictions of future trends. Crowdsourcing is a promising idea that must be practiced with a lot of care. One must consider the expertise of those he is employing to ensure that he

gets what he needs at the end of the work. The experts who are the crowd workers should also take it as their responsibility to ensure that they do not practice unacceptable behavior and that they only pick jobs that they are comfortable with. To pick tasks that you cannot perform is unprofessional.

In this paper we have presented the emerging field of crowdsourcing on smartphones. We expect that crowdsourcing with smartphones will evolve rapidly in the future. Smartphone networks comprise a new computation system that involves the joint efforts of both computers and humans. The unique data generated by the smartphone sensors and the crowds' constant movement, will enable new challenging applications and the solution of harder problems than crowds can currently accomplish. The focus of future efforts in this area lies in the collection of specialized location and image-related data and the better task assignment to match the particular expertise and interests of the smartphone users.

REFERENCES

- [1] Pekka Sillberg, Mika Saari, Jere Grönman, Petri Rantanen, Markku Kuusisto "Challenges in the Interpretation of Crowdsourced Road Condition Data" International Conference on Intelligent Systems (IS), At Madeira Island, Portugal, September 2018.
- [2] Catherine Lichten, Rebecca Ippolo, Camilla d'Angelo, Rebecca k Simmons, Molly Morgan Jones "citizen science: crowdsourcing for research", 2018.
- [3] Lars Hatmank "enterprise crowd literature" in the 22nd European conference on information system, 2014.
- [4] Ruoling Tao ,Holger R. Maier ,Linda See ,Dragan Savic ,Tuqiao Zhang ,Qiuwen Chen ,Thaine H. Assumpção ,Pan Yang ,Bardia Heidari ,Jorg Rieckermann, Barbara Minsker ,Weiwei Bi ,Ximing Cai ,Dimitri Solomatine "Crowdsourcing Methods for Data Collection in Geophysics: State of the Art, Issues, and Future Directions", 08 November 2018.
- [5] Garrigos-Simon, Fernando J.I, Narangajavana, Yeamduan, Barbera-Ribera, Teresa, Estelles-Miguel, Sofia "Participation throughout the crowd. The importance of crowdsourcing" 6th International

Conference on Industrial Engineering and Industrial Management. XVI Congreso de Ingenieria de Organizacion Vigo, July 18-20, 2012.

[6] Daren C. Brabham “Crowdsourcing as a Model for Problem Solving: An Introduction andCases” February 2008

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