

HealU-Widespread Disease Prevention Network

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Introduction

Among the global problems that are addressed by the World Health Organization, widespread diseases are a leading problem specially in the developing and under developed countries. Today Bird Flu, Swine Flu, Dengue, Malaria are a few among the lethal diseases that circulates the globe. The WHO further states that every year 250 million people are affected by malaria which leads to one million deaths per year, and also 2.5 billion people, two fifths of the world's population, are now at risk from dengue and estimated that there may be 50 million cases of dengue infection worldwide every year(UN Publications, 2013).

HealU is a wide spread disease prevention network, which provide a social technology platform to connects parties in order to provide the solution. Every person can be a part of it, specifically combining the government health sector which includes the authority, Deputy Director General and the Public Health Inspector and Organizations such as WHO, UNICEF, Rotary Club, Lions Club, etc. and Donors and suppliers like drug companies as well as hospitals, doctors are also part of the users and the public. The public can report about a problem in their community via SMS or web message which will lead the public health inspector for investigation then he/she will report the problem for approval and will be published in the network notifying the relevant organizations. Therefore it will provide the necessary requirements for the organizations to organize and manage to execute the project. HealU will also improve awareness among people initially acquire patient information from hospitals and provide disease statistics especially to the Deputy Director General; therefore he/she can suggest precautions and notify the public via SMS and Email. These disease statistics is also been used to generate projects in aid for those who are infected so that volunteer organizations can join hands to help people.

Methodology

HealU contains the following 3 major modules,

1. Communication.
2. Project manager.
3. Mobile application.

1. Communication

There are three methods the users of HealU can communicate

- SMS
- E-mail
- Web Messaging

1.1 Report a problem.

HEALU has to cooperate with SMS service providers, the public can post their problem through SMS. The web users, it is possible to web message a problem to the system. Once the problem is received it will be processed using server side scripts to extract information. This is why HEALU users have to use a specific format when they send SMS messages to our server.

HEALU location PROB message: the system stores the problems in the database and also categorize according to the problem description and location. The Project Manager will use these messages to generate projects.

1.2 Send awareness messages.

The DDG is responsible to send awareness messages. An interface indicates to specify the location and the awareness message in order to forecast out breaks.

1.3 User communication.

HealU notifies the relevant organizations once the project is approved. HealU provides a social web environment for the communication among users. And every ongoing and approved projects are displayed on the Google map (Google maps API for Flash, 2013). Messaging and emailing facilities is used to communicate which is helpful in project organization.

2. DDG functionality.

There are two main functionalities.

- Notify the public about potential diseases.
- Generate projects to combat the spread of disease.

As mentioned before the DDG can send awareness messages suggesting necessary precautions. The DDG can also generate projects to combat the spread of disease by viewing the disease statistics.

3. Mobile Application

Android enable mobile phone is the external device that interact with “HealU”(Adobe Systems Incorporated , 2013). As mentioned previously this mobile will be provided to the PHI for the on-field investigation.

After the public reports about a problem to the PHI, he/she has to visit the site and update the details through the mobile application.

Results and Discussion

The system was successfully designed and developed with all mentioned functions and features.

Basically it can be categorized in to three modules:

- Communication
- Managing projects
- Android Mobile Application

Above modules which will be helpful for the Government and public to prevent health issues and collect donations to prevent diseases shown in Figure 1 and 2.



Figure 1. Project Map



Figure 2. Mobile Application

Conclusions

HealU network is intended to help communities keep their communities healthier by identifying and neutralizing disease threats at the local level. The integration of the government, non-government organizations and the public to overcome these problems is a key feature of the system.

References

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