

Smart Phone Based Health Care System

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Abstract— Mobile healthcare provision in the home environment presents many challenges. Mobile Healthcare is a term used for the practice of medicine and public health supported by mobile devices. Health monitoring system based on mobile phones. Mobile computing is popular as wireless network has been deployed almost everywhere. Smart phones contain powerful embedded sensors such as GPS, accelerometer, digital compass, gyroscope, microphone and camera. A health monitoring system based on mobile phones may reduce cost of healthcare and simultaneously improve the quality of healthcare. Smartphone equipped with large screen, open operating system and powerful memory are increasingly used in many healthcare applications.

Keywords: Mobile phone sensor, health care assessment, Behavior modeling, Mobile healthcare

I. INTRODUCTION

Mobile technology gadgets such as mobile phones can be used effectively by patients to facilitate communication in different geographical locations that may hinder movement of the health workers. The number of people who possess mobile phones is increasing by day. Thus, through mobile messaging technology, monitoring of health can be simplified along with data collection, making it easier to analyze and evaluate health information. Due to the fact that there are limited health facilities in developing countries. This situation also results in congestion in mobile phone. This situation also contributes to poor service delivery in health facilities. The health, further, do not receive the required services to satisfactory. Mobile interactive messaging system for patients in collaboration with health workers has the potential to solve the before mentioned problems especially.

II. OBJECTIVE OF PROJECT

The objective of this project is approach to assessing individual's health care using mobile phone. We are going to extract several features from mobile phone data and then propose a method based on factor graph for assessing mood using these features. In this system contain data collection and model implementation. The problem of mobile phone based health assessment is an interesting topic in sensor data mining and still needs more exploration. For future work, more social networking information will be taken into consideration like the mood propagation, instead of just counting communication frequency. Then the personal assessment model can be transformed into a model on a dynamic social graph. We can also integrate into our model with more context information such as the weather and the public events of places the user visits. In sensor data processing, cross sensor features may also help improve the performance of our model.

A. Mobile Phone Sensing:

A converter that measures a physical quantity and converts it into a signal which can be read by an observer or by an instrument such as thermometers Radar guns, red light cameras Automatic door openers Cameras GPS Sensors have been used in cell phones since they were invented Microphone, number keys Touch screens, accelerometers, gyroscopes, GPS, cameras, etc.

III. WORKING OF SMART PHONE BASED HEALTH CARE SYSTEM

The Smart Phone Based Health Care System after careful analysis has been identified to present with the following modules.

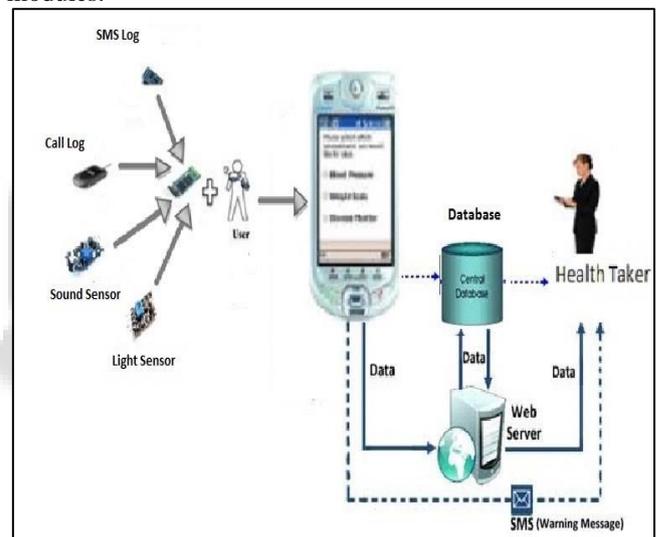


Fig. 1: Block Diagram

Mobile Healthcare is a term used for the practice of public health supported by mobile devices. In mobile healthcare applications include the use of mobile devices in Health care services using mobile sensor (for reduce different types of stress). The important way to use mobile phones in healthcare is to improve availability and quality of the healthcare services, because very many people in the world already have a mobile phone. Mobile phones based solutions can decrease healthcare services cost and it is another reason to use them. We propose a novel approach to assessing individual's daily mood using mobile phone. We first extract several features from mobile phone data, and then propose a method based on factor graph for assessing mood using these features.

IV. BENEFITS OF SMART PHONE BASED HEALTH CARE SYSTEM

- The main advantages of a health monitoring systems is Reduce or limit the bad effects that may be caused to patients by providing security and safety.

- It would be useful for any individual person who want to take care of his health.
- The system is connected to the patient all day long. The systems provide low complexity, low power consumptions, highly portable for health care monitoring of patient.
- Comparison of past and current patient data using data stored in the server of the healthcare information system.
- It reduces stress and mental health problems easy to use and cost effective.

V. CONCLUSION

The project Smart Based Healthcare System assists in automating the existing manual system. With the help of this application using various android phone sensors and data analysis techniques android users can control their daily habits which are not good for his mental health. The client application works on Android platform, which collects sensor data and communication data, while the runs on the server application, which receives data and provides mood states as output. Propose of this system approach to assessing individual' scaring of health by using mobile phone. We first extract several features from mobile phone data, and then propose a method based on factor graph for assessing health care using these features. We have built a system for data collection and model implementation. Experimental results show that our system can effectively assess daily life activity, with minimal user intervention. The problem of mobile phone-based mood assessment is an interesting topic in sensor data mining and still needs more exploration. For future work, more social networking information will be taken into consideration, like the mood propagation, instead of just counting communication frequency. In sensor data processing, Cross-sensor features may also help improve the performance of our model.

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