Online healthcare services

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Abstract

The average age growth led to a rise in demand for health care provision and improvement. The development of ICT led to the development of intelligent cities with several elements. The development of ICT. One component is intelligent health (s-health), which is used to improve healthcare by delivering a range of services like patient surveillance, early disease diagnosis and so forth. There are now numerous machine learning algorithms that make health services easier.We have conducted a structured analysis of the various approaches in human health used to Machine Learning. The results demonstrate that the ML is employed in a number of health applications, such as the diagnosis of glaucoma, Alzheimer's illness, and the diagnosis of bacterial septicism, ICU and the detection of cataracts. The Artificial Neural Network (ANN), the Support Vector Machine algorithm and the CNN (Deep Learning Models) are the most often applied methods for machine learning, with excellent evaluation efficiency in mostcircumstances.

Initially, the dataset is analyzed, checked and screened, the collected data is then handled using a   Machine Learning Algorithm in python programming that is special Decision Tree algorithm and a   Random Algorithm backwoods classifier. Support Vector Machine offers the highest level of accuracy for the identification of cardiovascular disease. The proposed approach is now shown to be solid in predicting previous cardiovascular conditions. The software and hardware proposed helps patients to predict early stage cardiac disease. Mass screening will be advantageous in places where hospital facilities, i.e. rural areas are not available .

Keywords*: Internet, Health services, Customer services quality, Trust, JIN Customer loyalty*

1.Introduction:

The Healthcare Management System which is basically a smart healthcare management system will be like an online healthcare management service with easy to use customizable options. This application is accessiblefrom anywhere and every patient, doctor, or any staff. This application is a secure AI-based data processing solution that will help many healthcare institutions and hospitals to study and analysis a patient's past medical records. It can assist patients with chronic medical problems in maintaining a healthy lifestyle by allowing them to track their health parameters and vitals on a regular basis. It has a chat window where the user/Patient may speak with the virtual doctor and discuss his or her health situation from the comfort of his or her own home. It provides general medical assistance which will be especially useful in cases of emergencies.

The software uses AI and NLP to predict words based on the conversation user is having. Using AI and ML, the app should be able to group items category wise, for example, food, drinks etc. This app can immediately connect medical staff to their emergency contact, immediately informing them if there's an emergency [1]. It is a secure app that knows who can gain access to the patient's medical information and medical staff can inform the contact of any new diagnoses or ailments. In emergency cases, an ambulance should know the best way to reach the patient. GPS monitoring can assist the ambulance while they're on the field as well as the hospital tracking the ambulance's location. The paramedics will navigate the best route to reach the patient. This app has information about all symptoms, illness, health problem, and also some type of health check-up services.

The system's principal role is to register and maintain patient and doctor information, as well as to access and meaningfully alter this information as needed. The patient's information and diagnosis are entered into the system, and the information is shown on the CRT screen. The system may assign each patient a unique identifier and automatically save the patient's and staff's information. It has a search feature that allows you to see the current state of each room [2, 1]. Using nearby doctors available, a user may search for a doctor's availability as well as the details of patient.

2. Scope:

The most exciting and enriching field of healthcare management concerned with organization, planning, coordination, staffing, evaluating and controlling health services for large population is evolving and changing at a very fast pace. The changes in lifestyle diseases, healthcare awareness and health policy; demand for superior healthcare facilities; aging population and rising income levels; increasing access to health insurance and growing consciousness towards preventive healthcare are the major contributing factors towards the expansion of the healthcare industry. The substantial revenue generation acts as a propeller towards the growth and development of the industry, driving force for new opportunities and employment possibilities.

3. Objective

The major goal of smart healthcare is to assist users by informing them about their medical state and keeping them informed about their health. Smart health care allows people to handle various emergency circumstances on their own. It focuses on increasing the user's quality of life and experience. Smart health care enables the most efficient use of available resources. Fig. 3.1 shows the advantages of a smart healthcare system.

- The benefits of smart health-care system are:
- Patient monitoring system
- Diseases prediction
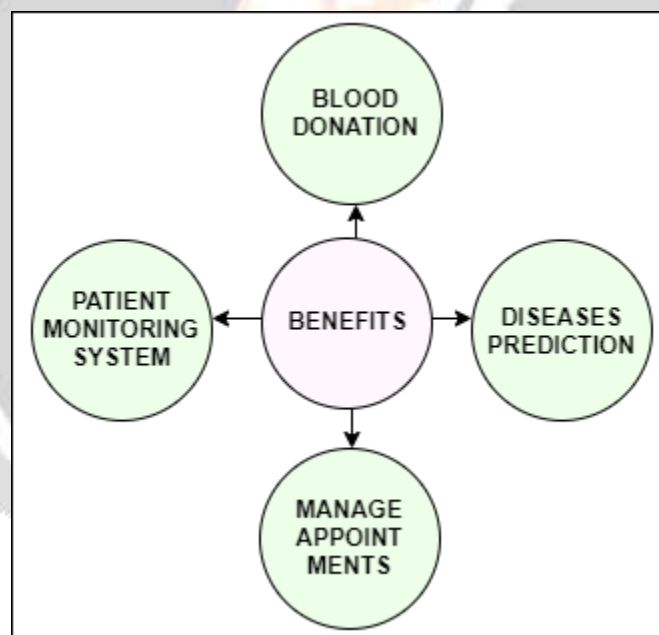- Manage Appointments
- Blood Donation

Figure : Benefits of smart healthcare management system

4. Literature Review:

Tittle : Online healthcare services
Inventor: Maruf Pasha and Syed Muhammad Waqas Sha
Description:

- Internet of things things technology consists of physical objects that are accessible via the internet. The aim of this project is to develop a specialized framework for an IOT based smart health system by focusing particularly on interperobility problems. Based on different technology standerd and

communication protocol the specific requirements of IOT system were analyzed and served as basis for the design of the framework.

- The protocols and standards within the framework utilize existing web technologies, communication protocols, and hardware design. approach ensures that the specific expectations of the proposed model can be fulfilled with confidence. experiments showed that interoperability between different IoT devices, standards, and protocols in a smart health system could be achieved using a specialized gateway device and that different web technologies could be used simultaneously in constrained and Internetenvironments.

Tittle: Online medical consultation.

Authors: Ajeet PAL singh, Hari Shankar Joshi, Arun Singh, Medhavi Agarwal

Description:
- The aim of this review article is to explore the possible reasons behind the beginning of a new era of consultation, which is online medical consultation. It examines features and themes evident in the literature and in a range of currently operating platforms providing online medicalconsultation

- As per the virtual visits consumer choice survey, 70% of patient respondents were of the view that they were willing to utilize virtual care for various types of visit. Online drug prescription, pre-surgical consultation, some post-operative appointments, receipt of oncology results, and chronic disease management check-ins were as the most preferred virtual care types. As consumers increasingly look forward to convenient, affordable health care—and as payers' enthusiasm in low-cost access continues to grow aggressively — this survey suggests that consumers are most likely to shop for those who offer virtual visits for specialty and chroniccare.

- In the study named, reasons for consulting a doctor on the internet: web survey of users of an ask the doctor service, it was discovered that since computers are quite common, in homes as well as in working environment, in most developed nations it is quite evident why convenience was a noteworthy factor behind participants picking up Internet consultations .Moreover, the asynchronous access to the Internet-based Ask the doctor service enables users to get the services at any point of the day, a component which was applauded by many of the participants

Results:

The recommendations offered above are intended to set the nation on a course that will ensure that technology, organizational practices, and public policies converge in ways that will lead to broader deployment of Internet-based systems in health applications

Undoubtedly, this course will have to be recharted over time to reflect progress made along each of the fronts and as Internet-mediated health processes continue to unfold. Changes in the structure of the nation's health care will continue to drive the kinds of health-related systems that will operate over the Internet, and the Internet will, in turn, drive changes in the structure and nature of health care.

Conclusions:

We developed a standard architecture for healthcare management system that will allow us to take advantage of the rapid medication safety growth increased by machine learning. Efficiency, security, accuracy, affordability, responsiveness, maintainability, scalability, dependability, and fault tolerance were all considered as design factors for both present and future smart medical systems. Using some of these newly available software and technologies improves the

productivity of medical workers. In the healthcare field, issues such as long-term patient-care in hospitals, support for elderly people at home. It is a real-time patient monitoring system that allows medical doctors to keep an eye on their patients from far, check their vital signs, and provide advice on first-aid treatments. On the central server, the data is available for inspection and may be viewed remotely using a regular webbrowser. of the Internet for remote monitoring of patients, controlling remote medical equipment, or conducting   remote medical consultations could impair rather than facilitate the delivery of quality health care. Addressing these concerns demands efforts in many areas, both technical .

Security and availability are critical technical needs for health applications of the Internet and are not adequately met by today's Internet.

Health care organizations are ill-prepared to adopt Internet-based technologies and applications effectively**.**

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