ANALYTICS FOR HOSPITALS HEALTH-CARE DATA

LITERATURE SURVEY

1.1 TITLE- Large Scale Infrastructure for Health Data Analytics

AUTHOR- Samantha Crossfield; Owen Johnson; Thomas Fleming

DESCRIPTION

The opportunities for data analytics to inform the science and practice of health care are growing. For example, in the UK, 65 million citizens have lifelong e-health records that can be used to examine patterns of disease, treatment and outcomes. Similarly the real-world impact of interventions such as new drugs can be evaluated in these records. Such approaches need to solve issues around information governance, confidentiality, understanding data and provenance and developing methods for big data. Here we describe a large-scale service that addresses the opportunities brought by the availability of large-scale e-health records. The service has been used to support 50 research projects in the UK across a wide range of scientific areas and can be seen as an exemplar for the developing field of health data analytics.

1.2 TITLE- Big data in health care: A mobile based solution

AUTHOR- Minerva Panda; Syed Mohd Ali; Sanjog Kumar Panda

DESCRIPTION

In the present Indian scenario, healthcare information is independently maintained by hospitals, institutions and not readily accessible in a centralized, informed manner. This greatly limits the health providers' efforts to improve quality and efficiency. Through this paper, we address this issue on bringing various information from many sources into one place in realtime which can be truly life saving. Also, low ratio of doctor to patient and the low per capita income in India hikes the medical expenses thereby increasing the patient's inaccessibility to receive proper health care in their reach especially for people in the rural areas. A means by which the bridge between the patients and doctors can be gapped and how patients can be treated at a lower expense is the prime concern. This paper focuses on the development of a mobile/web application, through which patients

sends their symptomatic query to the doctors through a server. The mobile application will be equipped with first aid instructions, according to the nature and severity of the symptoms, either the patients are directed to respective departments or given emergency help for further treatment. Within the time huge amount of data is collected from users and doctors, this big data will be used to train machines to automate the tasks to some extent. The information gained from analyzing massive amounts of aggregated health data can provide useful insight to improve quality and efficiency for providers and insurers alike. This makes the patients reach out for healthcare solutions easily and cheaply and makes healthcare a easy reach for the unprivileged also.

1.3 TITLE- Implementation of Big Data in Hospital using Cluster Analytics

AUTHOR- Evaristus Didik Madyatmadja; Marvell Marvell; Johanes Fernandes Andry; Hendy Tannady

DESCRIPTION

Technology is needed to develop rapidly, including in the health sector. Any industry and any countries, big data technology has become a significant database where the data or information to generate can be used in medicine, one of which is applied in hospitals, clinics and the private sector. Big data is evolutionary and software in a suitable environment is being developed again. Health care data drives big data, for example data on patients with heart failure and with this data, authors can use data analytic tools to detect this so that it can be anticipated so that it can reduce the death rate due to this. The problem is that many hospitals have not applied technology to detect their health, and seeing from the times the technological era is increasingly advanced, including in the field of hospitals. To get this solution, use clustering analytics with method K-means using rapid miner studio. Hopefully this analytics that can help research in medical field to do a prediction for heart failure symptoms.

1.4 TITLE- Big Data Analytics in Healthcare

AUTHOR- M. Ambigavathi; D. Sridharan

DESCRIPTION

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The pace of both digital innovation and technology disruption is refining the healthcare industry at an exponential rate. The large volume of healthcare data continues to mount every second, making it harder and very difficult to find any form of useful information. Recently, big data is shifting the traditional way of data delivery into valuable insights using big data analytics method. Big data analytics provides a lot of benefits in the healthcare sector to detect critical diseases at the initial stage and deliver better healthcare services to the right patient at the right time so that it improves the quality of life care. Big data analytics tools play an essential role to analyze and integrate large volumes of structured, semi-structured and unstructured vital data rapidly produced by the various clinical, hospitals, other social web sources and medical data lakes. However, there are several issues to be addressed in the current health data analytics platforms that offer technical mechanisms for data collection, aggregation, process, analysis, visualization, and interpretation. Due to lack of detailed study in the previous literature, this article inspects the promising field of big data analytics in healthcare. This article examines the unique characteristics of big data, big data analytical tools, different phases followed by the healthcare economy from data collection to the data delivery stage. Further, this article briefly summarizes the open research challenges with feasible findings, and then finally offers the conclusion.