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An Implementation Paper on Medical Knowledge Globalization, Analysis and Research System

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Abstract
This paper describes a two-module system whose function is to find relationships between working environment (harmful or not) and diseases caused to workers. Our objective here is to unravel inconspicuous disease causing factors subjective to different working conditions and hence help to eliminate these causes. This will ensure a healthy and efficient workforce and may also contribute to medical science by finding new origin and treatment for different diseases.
Keywords*:* Polarity Analysis, Relationship between working conditions and diseases caused, medical knowledge globalization.

I. INTRODUCTION:

Now-a-days, due to the ever increasing health concerns, people are willing to go an extra mile to ensure a healthy life. And organisations want the same for their employees to increase productivity.

Hence arises the need for this system- Medical Knowledge Globalisation Analysis and Research system. This system provides us a unique vision that will enable us to look into the roots of a disease subjective to the environment, a particular person is in throughout the day. As mentioned in the abstract, this system has two modules. The first module of the two is designed to analyze information provided by the patient (in the form of sentences in English) about the symptoms observed and possible theory about

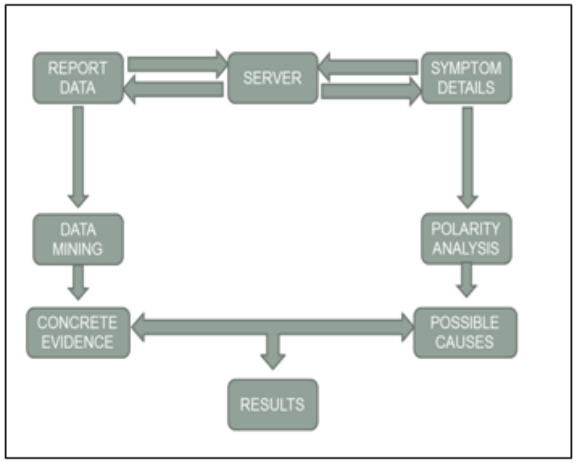

Fig 1: Block diagram of Medical Knowledge Globalization Analysis and Research

the cause and catalyst for those symptoms. Next, the second module analyses the actual medical records to find concrete evidence to support a possible cause. Finally by comparing the results of the two modules we are able to put forth, true, reliable and inconspicuous relationships between different working conditions and diseases caused to workers. This information will be made available globally through the internet so that patients and doctors find it convenient and flexible to access this information.

II. OBJECTIVES:

The main aim of the system is to minimize the work load of the hospital faculties and to provide the advanced features like polarity analysis. The polarity analyser will show the relation between the different elements of the system that are inter connected to each other. The result will be displayed in the form of a pie-chart.

III. DESIGN AND IMPLEMENTATION

Based on the requirements of the Ordinance Hospital we have developed this system that contains the disciplined way of report generation and analysing of the same. Also considering the various problems faced in the commonly used hospital management system, we are implementing this system with the advanced features of polarity analyser. This analyser will take the inputs from the other module of the system and generate the results based either on positive sentimentation or negative sentimentation. Hence this will be represented in the form of the pie-chart. In support to the system is data

mining. We have implemented a data mining instead of data base.

IV. POLARITY ANALYSER:

The polarity analyser will work in the following steps as shown in the figure below

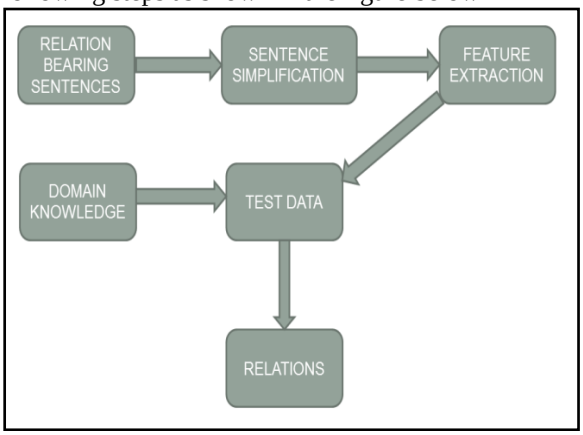

Fig. 2 Stages of polarity

A. Polarity Indicator

The polarity indicator will display the final output of the analyser in the form of the pie-chart. Polarity can be of the types. Positive, negative and neutral.

Polarity	Polarity Indicator
Positive	+
Negative	-
Neutral	=

Table 1 : Polarity Indicator

V. DATA MINING

The concept of data mining is used to support polarity analysis. The main function of mining is to analyse the data collected in ware house. Here in the data-ware house all the sentences will be stored which will be processed and analyzed. The information processing is done in the following way:

- Collection
- Extraction
- Analysing

Data mining will help to extract all the required information and this information will be passed to polarity analyzer to further obtain the results.

VI. CONCLUSION

Medical knowledge globalization analysis and research is a system that is working in combination of polarity and data mining to extract the required information related to the patients. Also generates a graphical analysis of the results to make it simple for doctors to research and generate reports.

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