

CLASSIFICATION ALGORITHM BASED MENTAL HEALTH PREDICITON USING DATA MINING

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ABSTRACT

Mental Stress Prediction is the popularity and ease of use of social networking services have excited institutions with their potential in a variety of areas. However effective use of social networking services poses a number of challenges for institutions including long-term sustainability of the services; user concerns over use of social tools in a work or study context; a variety of technical issues and legal issues such as copyright, privacy, accessibility; etc. Institutions would be advised to consider carefully the implications before promoting significant use of such services. That's Why we are Developing it.

Keywords : *Predict the Mental Health of a person.*

1. INTRODUCTION

With the explosive growth in popularity of social networking and messaging apps, online social networks (OSNs) have become a part of many people's daily lives. Most research on social network mining focuses on discovering the knowledge behind the data for improving people's life. While OSNs seemingly expand their users' capability in increasing social contacts, they may actually decrease the face-to-face interpersonal interactions in the real world. Due to the epidemic scale of these phenomena, new terms such as Phubbing (Phone Snubbing) and Nomophobia (No Mobile Phone Phobia) have been created to describe those who cannot stop using mobile social networking apps. Today, identification of potential mental disorders often falls on the shoulders of supervisors (such as teachers or parents) passively. However, since there are very few notable physical risk factors, the patients usually do not actively seek medical or psychological services.

2. METHODOLOGY

INPUT DESIGN

Input design is the process of converting user-oriented inputs to a computer-based format. The quality of the system input determines the quality of system output. Input design determines the format and validation criteria for data entering to the system.

Input design is a part of the overall system design, which requires very careful attention. If the data going into the system is incorrect then the processing and output will magnify these errors. Input can be categorized as internal, external, operational, computerized and interactive. The analysis phase should consider the impact of the inputs on the system as a whole and on the other systems.

Any abnormality found in the inputs are checked and handled effectively. Input design features can ensure the reliability of a system and produce results from accurate data or they can result in the production of erroneous information.

Input Design is one of the most expensive phases of the operation of computerized system and is often the major problem of a system. A large number of problems with a system can usually be tracked backs to fault input design and method. Needless to say, therefore, that the input data is the life blood of a system and have to be analyzed and designed with utmost case and consideration.

OBJECTIVES

Input Design is the process of converting a user-oriented description of the input into a computer-based system. This design is important to avoid errors in the data input process and show the correct direction to the management for getting correct information from the computerized system.

It is achieved by creating user-friendly screens for the data entry to handle large volume of data. The goal of designing input is to make data entry easier and to be free from errors. The data entry screen is designed in such a way that all the data manipulates can be performed. It also provides record viewing facilities.

OUTPUT DESIGN

Output design is very important concept in the computerized system, without reliable output the user may feel the entire system is unnecessary and avoids using it. The proper output design is important in any system and facilitates effective decision-making. Output Design generally refers to the result and information that are generated by the system for many end-user, output is the main reason for developing the system and the basis on which they evaluate the usefulness of the application.

The output design is an ongoing activity almost from the beginning of the project, and follows the principles of form design. Effects and well define an output design improves the relationship of system and the user, thus facilitating decision-making.

A quality output is one, which meets the requirements of the end user and presents the information clearly. In any system results of processing are communicated to the users and to other system through outputs. In output design it is determined how the information is to be displaced for immediate need and also the hard copy output. It is the most important and direct source information



to the user. Efficient and intelligent output design improves the system's relationship to help user decision-making

DATABASE DESIGN

A well database is essential for the good performance of the system .several tables are referenced or manipulated at various instance. The table, also know as relation; provide information pertaining to a specified entity. Normalization of table is carried out to extent possible, while the normalizing tables, care should be taken to make sure that the number of tables do not exceed the optimum level, so that table maintenance. Is convenient and effective

The process of doing database design generally consists of a number of steps which will be carried out by the database designer. Not all of these steps will be necessary in all cases. Usually, the designer must:

- Determine the data to be stored in the database
- Determine the relationships between the different data elements
- Superimpose a logical structure upon the data on the basis of these relationships.

Within the [relational model](#) the final step can generally be broken down into two further steps that of determining the grouping of information within the system, generally determining what are the basic objects about which information is being stored, and then determining the relationships between these groups of information, or objects. This step is not necessary with an [Object database](#).

3. TECHNIQUES

Java

Java is a programming language created by James Gosling from Sun Microsystems (Sun) in 1991. The target of Java is to write a program once and then run this program on multiple operating systems. The first publicly available version of Java (Java 1.0) was released in 1995.

Sun Microsystems was acquired by the Oracle Corporation in 2010. Oracle has now the steermanship for Java. In 2006 Sun started to make Java available under the GNU General Public License (GPL). Oracle continues this project called OpenJDK.

The Java language was designed with the following properties:

- Platform independent: Java programs use the Java virtual machine as abstraction and do not access the operating system directly. This makes Java programs highly portable. A Java program (which is standard-compliant and follows certain rules) can run unmodified on all supported platforms, e.g., Windows or Linux.

- Object-orientated programming language: Except the primitive data types, all elements in Java are objects.
- Strongly-typed programming language: Java is strongly-typed, e.g., the types of the used variables must be pre-defined and conversion to other objects is relatively strict, e.g., must be done in most cases by the programmer.
- Interpreted and compiled language: Java source code is transferred into the bytecode format which does not depend on the target platform. These bytecode instructions will be interpreted by the Java Virtual machine (JVM). The JVM contains a so called Hotspot-Compiler which translates performance critical bytecode instructions into native code instructions.
- Automatic memory management: Java manages the memory allocation and de-allocation for creating new objects. The program does not have direct access to the memory. The so-called garbage collector automatically deletes objects to which no active pointer exists.

Client Application Development

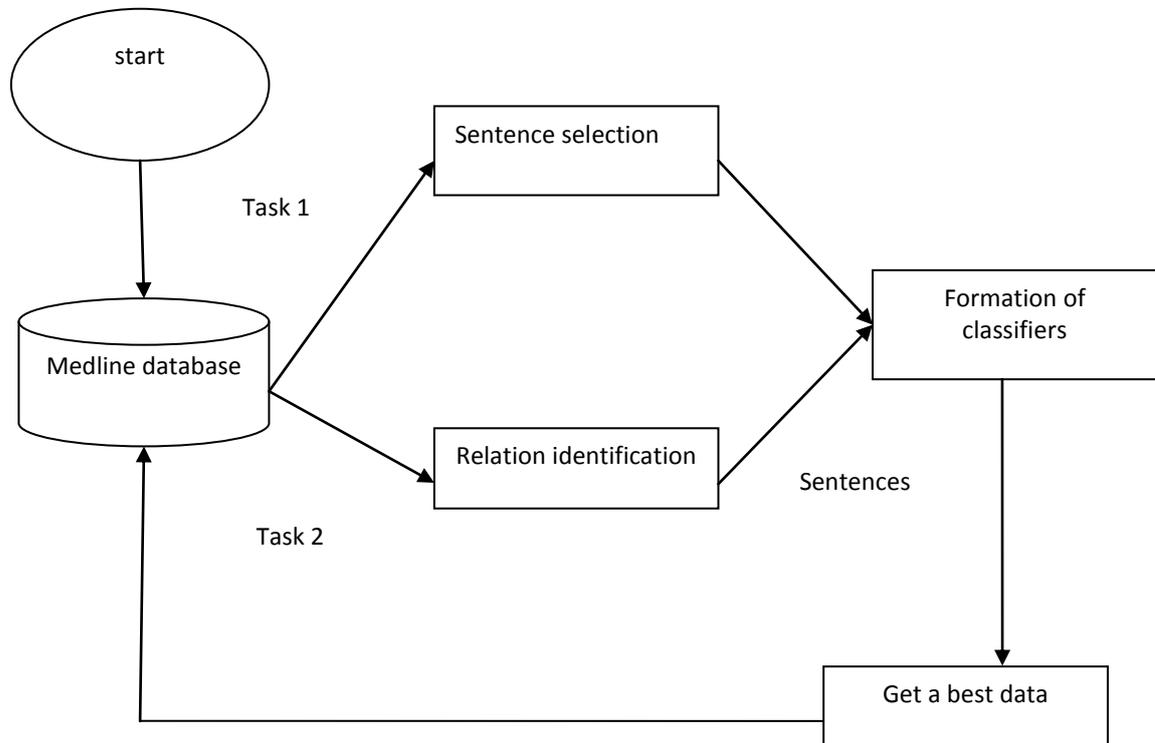
Client applications are the closest to a traditional style of application in Windows-based programming. These are the types of applications that display windows or forms on the desktop, enabling a user to perform a task. Client applications include applications such as word processors and spreadsheets, as well as custom business applications such as data-entry tools, reporting tools, and so on. Client applications usually employ windows, menus, buttons, and other GUI elements, and they likely access local resources such as the file system and peripherals such as printers.

SQL Server Database

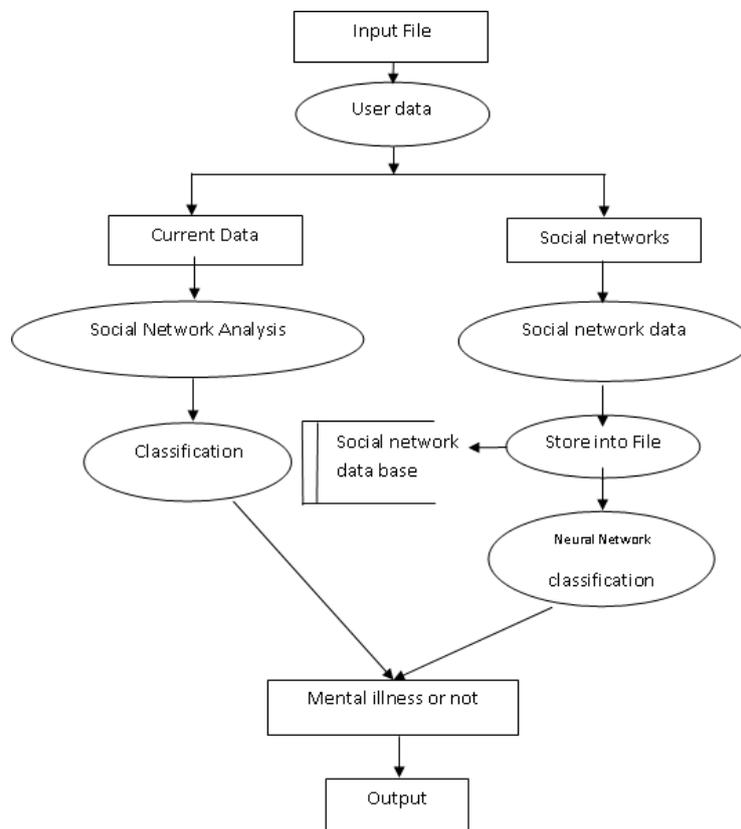
A database management, or DBMS, gives the user access to their data and helps them transform the data into information. Such database management systems include dBase, paradox, IMS, Sql Server and SQL Server. These systems allow users to create, update and extract information from their database.

A database is a structured collection of data. Data refers to the characteristics of people, things and events. SQL Server stores each data item in its own fields. In SQL Server, the fields relating to a particular person, thing or event are bundled together to form a single complete unit of data, called a record (it can also be referred to as raw or an occurrence). Each record is made up of a number of fields. No two fields in a record can have the same field name.

During an SQL Server Database design project, the analysis of your business needs identifies all the fields or attributes of interest. If your business needs change over time, you define any additional fields or change the definition of existing fields.



Data Flow Diagram



This project is using two different types of social networks, namely, detecting and tracking mental illness on social networks have been employed for the automated detection of mental illness. A robust and computationally low-intensive feature, namely, approximate mental illness has been used for the proposed mental illness detection system. Experimental results show that overall accuracies as high performance can be achieved by this system. As the proposed system is based on a single feature that has a low computational burden, it is best suited for the real-time detection of epileptic seizures from ambulatory recordings.

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